D H E C PROMOTE PROTECT PROSPER	**South Carolina Department of Health and Environmental Control** **Division of Procurement Services** **Invitation for Bid**	Solicitation No.: IFB-32927-1/10/08-EMW Date Issued: 12/5/07 Procurement Officer: E. Madison Winslow Phone No.: (803) 898-3487 E-mail Address: winsloem@dhec.sc.gov

DESCRIPTION: Corrective action for petroleum releases – UST Permit Number 07631, Columbia, SC

The Term "Offer" Means Your "Bid" or "Proposal"

SUBMIT OFFER BY (Opening Date/Time): **January 10, 2008/2:30 pm E.T.**

NUMBER OF COPIES TO BE SUBMITTED: **One (1) original**

QUESTIONS MUST BE RECEIVED BY: **January 3, 2008/2:30 p.m. E.T.** See Specific Requirements, Number 2

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	PHYSICAL ADDRESS:
SC DHEC Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	SC DHEC Division of Procurement Services Bureau of Business Management 2600 Bull Street, Room 1200 – Aycock Bldg. Columbia, S. C. 29201

Offers Must Be Sealed: See provision entitled "Submitting Your Offer"

AWARD & AMENDMENTS	Award will be posted on or after **January 17, 2008**. The award, this solicitation, and any amendments will be posted at the following web address: http://www.scdhec.net/procurement.

You must submit a signed copy of this form with your offer. By submitting a bid or proposal, you agree to be bound by the terms of the solicitation. You agree to hold your offer open for a minimum of thirty (30) calendar days after the opening date.

NAME OF OFFEROR (Full legal name of business submitting the offer)		OFFEROR'S TYPE OF ENTITY: (Check one) ☐ Sole Proprietorship ☐ Partnership ☐ Corporation (tax-exempt) ☐ Corporate entity (not tax-exempt) ☐ Government entity (federal, state, or local) ☐ Other (See provision entitled "Signing Your Offer")
AUTHORIZED SIGNATURE (Person signing must be authorized to submit binding offer to enter contract on behalf of Offeror named above.)		
TITLE (Business title of person signing above)		
PRINTED NAME (Printed name of person signing above)	DATE	

Instructions regarding offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the offeror above. An offer may be submitted by only one legal entity. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, *i.e.*, a separate corporation, partnership, sole proprietorship, etc.

OFFEROR'S HOME OFFICE ADDRESS (Address for the offeror's **principal place of business**)		
CITY	STATE	ZIP CODE
PHONE	FACSIMILE	E-MAIL
STATE OF INCORPORATION (If offeror is a corporation, identify the state of Incorporation)		
TAXPAYER IDENTIFICATION NO. (See provision entitled Taxpayer Identification Number)		

I. SCOPE OF WORK

A. DEFINITIONS:

For the purposes of this contract the following terms and definitions shall apply:

1. Catastrophic Occurrence: an event (e.g., hurricane) that results in a declared state of emergency and directly and substantially affects the Contractor's operations at a site.
2. Chemicals of Concern: Specific constituents that are identified for monitoring and corrective action.
3. Corrective Action Completion Time: the time in months, estimated by the Contractor, necessary to reduce concentrations of chemicals of concern to site-specific target levels, verify attainment of the goals, and remove or properly abandon assessment and corrective action items (wells, treatment lines, etc.).
4. Corrective Action Plan: A document outlining and detailing proposed corrective actions.
5. Corrective Action System Startup Date: the date on which the Contractor initiates full time treatment operations or initiates injection into or extraction from the subsurface.
6. Site Incentive Period: the period of time in months established by the SCDHEC during which the Contractor must achieve the 100% Concentration Reduction Goal in order to qualify for the Early Completion Incentive.

B. SOLICITATION STATEMENT

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) is seeking services to perform active corrective action of petroleum releases at regulated underground storage tank sites in accordance with defined remediation goals. The *objective is to prevent significant further migration and reduce the levels of chemicals of concern (CoC) in the soil and groundwater to or below defined site-specific target levels (SSTLs).* All offerors must be South Carolina Certified Class I Site Rehabilitation Contractors.

C. SCHEDULE OF DELIVERABLES

The following table summarizes the deadlines for deliverables associated with this contract.

DELIVERABLE DUE	DEADLINE
Questions	By 2:30 p.m. ET, 1/3/08
Sealed Bids	By 2:30 p.m. ET, 1/10/08
Corrective Action Plan	30 days from date of award
Performance Bond	30 days from date of award
Initial Monitoring Report	45 days from date of award
CAP Implementation	30 days from Notice to Proceed
System Start Up	15 days from receipt of Permit to Operate and CAP Notice to Proceed
Notify Project Manager of Sampling	At least two (2) weeks prior to the event
Corrective Action Monitoring Report	Quarterly from date of start up
Abandon Monitoring Wells and Corrective Action System	Within 60 days from notice by SCDHEC

D. SITE SPECIFIC INFORMATION

The scope of work defined in this solicitation is to be implemented at:

UST Permit #	Facility Name	Site Address	Date Release Reported	Appendix #
07631	Hess 40245	7351 Two Notch Rd., Columbia SC	December 28, 1989	A

II. CONTRACTUAL REQUIREMENTS

A. GENERAL REQUIREMENTS

1. CONTRACT PERIOD: The contract will be effective from date of award until the corrective actions are complete as described in this contract.

2. EQUAL OPPORTUNITY EMPLOYMENT: Contractor must agree to make positive efforts to employ women, other minorities, and minority-owned businesses.

3. AMENDMENTS: All amendments to this solicitation shall be in writing from the SCDHEC Procurement Officer indicated on page one of this solicitation. SCDHEC shall not be legally bound by any amendment, interpretation or settlement that is not in writing.

4. RESTRICTION . . . THE ONLY OFFICIAL CONTACT PERSON AT SCDHEC DURING THE SOLICITATION AND AWARD OF THIS CONTRACT IS THE PROCUREMENT OFFICER INDICATED ON PAGE 1 OF THIS SOLICITATION. OFFERORS ARE NOT TO CONTACT ANY OTHER SCDHEC PERSONNEL LOCATED OUTSIDE THE BUREAU OF BUSINESS MANAGEMENT.

5. AWARD: Award will be made to a South Carolina Certified UST Site Rehabilitation Contractor based on the Grand Total cost, method(s), and Corrective Action Completion Times for all sites listed. For a bid to be considered responsive, the proposed implementation schedule(s) and the proposed remediation technology(ies) or method(s) for active corrective action to achieve the remediation goals must be protective of public health and the environment and be eligible for permitting by SCDHEC. The total cost, methods, and time to complete the contract must be advantageous to the State of South Carolina.

    a. The Corrective Action Completion Times shall be determined by the offeror and entered into the Corrective Action Solicitation Response in Contract Item IV.B.
        i. Time is of the essence in completing the site work to restore the aquifers and protect human health and the environment. Therefore, offerors are encouraged to strive for efficient remediation methods and to propose the shortest practical times for the completion of these sites.
        ii. Award of the contract, if made, will be made to the responsible and qualified offeror who submits the lowest Grand Total amount. The Grand Total amount will be the sum of the Site Total Amounts provided for each site in the Corrective Action Solicitation Response. In the event that two or more bidders submit the lowest Grand Total amount, the award, if made, will be decided in accordance with the Tie Bids procedure

in Section B.(6) of the Underground Storage Tank Environmental Remediation Procedures. Submittal of a "No Bid" for an individual site in this solicitation will be considered non-responsive and will result in rejection of the overall bid.

iii. The contractor shall enter the number of months in the space provided for each site in Section IV.B and in the Summary Table of the Corrective Action Solicitation Response (IV.C).

6. REASONABLE COST: SCDHEC reserves the right to reject any and all bids that appear to be above the customary and reasonable cost for the same scope of work in a similar geologic setting, that propose technologies that cannot be permitted in South Carolina, or that propose time frames for cleanup that are not protective of human health or the environment.

7. SITE WORK VERIFICATION: The contractor will be required to treat the area where petroleum chemicals of concern (CoC) are above site-specific target levels in Appendix A of this solicitation. Verification that interim corrective action goals have been met will be based upon direct measurements and groundwater quality samples collected from the monitoring wells indicated for the site in the appendix. Verification that final corrective action goals have been met will be based upon direct measurements and groundwater quality samples from all existing monitoring wells and additional verification wells to be installed at locations and depths designated by SCDHEC (See Contract Item III.B.10 for more details). It is understood that seasonal fluctuations in CoC concentrations will occur over time. It is the intent of this corrective action to prevent further degradation of the aquifer(s) by continued migration of CoC into areas not previously impacted. If the corrective action allows CoC to migrate and impact areas beyond the assessed areas of concern established for any of the sites in this solicitation, the Contractor will be responsible for completing assessment activities necessary to re-define the area of concern and for providing amendments to their Corrective Action Plan addressing the additional impacted areas.

8. REPORTS: Deliver one electronic and one paper copy of each plan or report to: SCDHEC, Bureau of Land and Waste Management, UST Program, 2600 Bull Street, Columbia, SC 29201. A minimum of one (1) copy of each plan and one (1) copy of each report must be delivered to the parties listed on the Distribution List included in the appendix. Based on permitting and other requirements, additional copies of plans or reports may be required by the SCDHEC. The SCDHEC will notify the Contractor of the exact number of copies of each document to be submitted.

9. INVOICING: Invoices will be submitted to: SCDHEC, Bureau of Land and Waste Management, UST Program, ATTN: Financial Section, 2600 Bull Street, Columbia, SC 29201, using the SCDHEC's Corrective Action (CA) Invoice form. The initial invoice for the site must be received at the above address within four months of CAP approval or funds will be uncommitted as required by the Section 44-2-40(B) of the SUPERB Act. If funds are uncommitted the submitted invoice will be held until funding is available. **Payment will only be made for achieving the corrective action goals as specified. No partial payments will be made once corrective action is initiated, except as outlined in Contract Item III.B.3.** Payment to the contractor will be a pay for performance system as follows:

A. Payment of forty percent (40%) of the total corrective action price site will be made within 90

days following receipt of an invoice and documentation that the contractor has completed the Corrective Action System Startup. All corrective action activities must be as described in the CAP and are subject to the limitations of Section 44-2-40 of the SUPERB Act. The implementation should be documented in the first corrective action system evaluation (CASE) report for each site. The first CASE report for each site must include the construction logs for all treatment/recovery wells installed in accordance with the CAP.

B. Payment of forty percent (40%) of the total corrective action price will be made based on achieving interim CoC concentration reduction goals at the site as verified in the monitoring wells listed in the appendix for each site. Payments will be made upon receipt of invoices and documentation that the contractor has achieved interim goals of 60, 90 and 100 percent reduction of total CoC concentration above the SSTLs for each site by the implementation of active corrective action. The CoC concentrations and SSTLs are listed in the appendix.

1. The first concentration reduction goal will be achieved when sixty percent (60%) of the initial CoC concentration above the SSTLs from the monitoring wells specified in the appendix is removed. The following formula will be used to calculate the percent total concentration reduction: total concentration above SSTLs from initial sampling less total concentration above SSTLs from subsequent sampling divided by total concentration above SSTLs from initial sampling. Payment of fifteen percent (15%) of the total bid price will be made upon verification (see Contract Item III.B.10 for the method of verification) that at least sixty percent (60%)of the total CoC concentration above SSTLs is removed.

The following is an example to demonstrate the CoC Concentration Reduction Calculation:

Well		Benzene	Toluene	Ethylbenzene	Xylene	MTBE	Naphthalene	Conc>SSTL
MW-1	Initial [A]	7,500	4,000	2,000	15,000	3,000	1,000	[A]
	SSTL [B]	10	2,000	1,400	10,000	80	50	[B]
	Initial > SSTL [C]	7,490	2,000	600	5,000	2,920	950	18,960 [C]
	Subsequent [D]	3,000	1,000	900	13,000	2,000	5	[D]
	SSTL [E]	10	2,000	1,400	10,000	80	50	[E]
	Subsequent > SSTL [F]	2,990	0	0	3,000	1,920	0	7,910 [F]
MW-4	Initial [G]	150	400	50	250	300	25	[G]
	SSTL [H]	5	400	50	250	40	25	[H]
	Initial > SSTL [I]	145	0	0	0	260	0	405 [I]
	Subsequent [J]	100	100	1	1	100	1	[J]
	SSTL [K]	5	400	50	250	40	25	[K]
	Subsequent> SSTL [L]	95	0	0	0	60	0	155 [L]
Totals	Initial > SSTL [M]	(sum of initial concentration above SSTL for all wells) (C+I)						19,365 [M]
	Subsequent> SSTL [N]	(sum of subsequent concentration above SSTL for all wells) (F+L)						8,065 [N]

Notes: If subsequent sampling indicates a CoC concentration at or below the SSTL and/or a CoC concentration at BDL but the reporting limit is at/or below the SSTL value for any constituent, the value for the concentration reduction will be 0 (no negative numbers).

If subsequent sampling indicates a CoC concentration at BDL but the reporting limit is above the SSTL, the value for any constituent will be the analytical reporting limit.

Concentration Reduction Calculation

$$\text{CoC Concentration Reduction} = \frac{(M-N)}{(M)} = \frac{(19{,}365-8{,}065)}{19{,}365} = 0.5835 * 100 = 58.35\% \text{ CoC Reduction}$$

2. The second concentration reduction goal will be achieved when ninety percent (90%) of the initial CoC concentration above the SSTLs from the monitoring wells specified in the appendix is removed. The formula outlined above will be used. Payment of fifteen percent (15%) of the total corrective action price will be made upon verification (see Contract Item III.B.10 for the method of verification) that at least ninety percent (90%) of the total CoC concentration above SSTLs has been removed.

3. The third concentration reduction goal will be achieved when one hundred percent (100%) of the initial CoC concentration above the SSTLs from the monitoring wells specified in the appendix is removed. The formula outlined above will be used. Payment of ten percent (10%) of the total corrective action price will be made upon verification (see Contract Item III.B.10 for the method of verification) that one hundred percent (100%) of the total CoC concentration above SSTLs has been removed. **Achievement of this goal must be verified by split sampling with the SCDHEC**.

C. The final twenty percent (20%) of the total corrective action price will be paid upon receipt of an invoice and verification that CoC concentrations do not exceed the SSTLs defined in the appendix and SSTLs calculated for any point in the area of concern for that site. Verification that the SSTLs have been achieved will be based upon groundwater quality samples collected from all existing monitoring wells and additional verification wells to be installed at locations and depths designated by SCDHEC (see Contract Item III.B.10 for more details); and 2) all remediation and assessment items (e.g., wells [including pre-existing wells], trenches, etc.) are removed from the site or properly abandoned. The SSTLs for the site are given in the appendix.

10. NOTIFICATION FOR FAILURE TO PERFORM: If the contractor fails during the course of this contract to make reasonable progress toward the cleanup goals or to meet any condition or specification of corrective action as outlined in this document without prior notification to the project manager of circumstances legitimately beyond the control of the contractor, SCDHEC will, on the first occurrence, notify the contractor by certified letter and meet with them to establish a remedy for the deficiency(ies). If the contractor corrects the deficiency(ies) within an agreed to period of time, the corrective action award will continue. If the contractor does not correct the deficiency(ies) within the agreed to period of time, the contractor will be in breach of contract and the corrective action award may be voided by SCDHEC. On the second occurrence, SCDHEC will notify the contractor and their bonding agent or creditor by certified letter and meet with them to establish a remedy for the deficiency(ies). If the contractor corrects the deficiency(ies) within an agreed to period of time, the corrective action award will continue. If the contractor does not correct the deficiency(ies) within the agreed to period of time, the contractor will be in breach of contract and the corrective action award may be voided by

SCDHEC. **If the contractor fails on a third occasion during the course of this contract to meet any condition or specification established in this document, the contractor will be in breach of contract and the corrective action award will be voided by SCDHEC.** SCDHEC will notify the contractor and their bonding agent or creditor by certified letter that the corrective action award has been voided and will initiate appropriate actions with the bonding agent. **In the event that the corrective action award is voided due to a breach of contract as outlined above, no further payment of any invoices will be made.** If the corrective action award is voided under the conditions listed above, the contractor will incur a six-month suspension from bidding on any UST-related solicitations in South Carolina and may be subject to suspension or decertification in accordance with the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98. Any voiding of a corrective action award due to breach of contract will apply only to the site where the deficiency(ies) occurred and will not directly affect other sites awarded in conjunction with this solicitation.

11. CANCELLATION: The accepted corrective action cost will be final and will not be increased or cancelled for any reason (e.g., unanticipated iron fouling of a system, wells clogging because of biological activity or sediments, damage by lightning, increased subcontractor costs, loss of utilities, modification to the system to meet the remediation goals, etc.) with the exception of unforeseen subsurface conditions as determined solely at the discretion of the SCDHEC or identification of additional CoC from a release occurring after the award of this contract that adversely impacts the corrective action. Contractor-owned items used on-site for the contract that are damaged or destroyed by common acts of nature, improper maintenance or handling, theft or vandalism will not be replaced or reimbursed by the SUPERB Account. **Payment will only be made for achieving the corrective action goals as specified in this contract. No interim or partial payments will be made once corrective action is initiated, except as outlined as follows. Once site rehabilitation has been initiated under this contract, in the event of a cancellation due to the circumstances prescribed in this condition, final payment will be a percentage of the contract amount equal to the actual percent reduction of the CoC concentration as calculated based on the last sampling results from all wells listed in the Appendix for each site less the amount previously paid.** Any action taken by the SCDHEC under this condition that might result in the cancellation of a corrective action award due to circumstances described in this condition will apply only to the affected site and will not directly affect other sites awarded in conjunction with this solicitation.

12. PERFORMANCE BOND: A performance bond, equal to fifty percent (50%) of the award price, will be required by SCDHEC for the site and should be submitted with the CAP. **Bonds must be obtained from a surety that is on the Secretary of the Treasury's list of acceptable sureties for Federal bonds.** The original performance bond will be submitted to the Bureau of Land and Waste Management, UST Program, Attn: Financial Section, within 30 days of award. The performance bond will specify that the SUPERB Account will be the recipient of any forfeiture. **The performance bond must bear the SCDHEC Permit ID Number and the Bid Number.** Since SCDHEC is responsible for disbursement of funds from the SUPERB Account, the bond will be held by the Bureau of Land and Waste Management, UST Program until the work is successfully completed at the awarded site. **The performance bond must be kept current for the duration of the corrective action. Failure to maintain the performance bond may result in the corrective action award being voided by SCDHEC in accordance with Contract Item II.A.10.**

B. SPECIFIC REQUIREMENTS

1. CONTRACT SCOPE: This contract is for active corrective action at one site in South Carolina.

2. INQUIRIES: Questions or requests for information must be submitted in writing and received by 2:30 P.M. ET on the date specified in Section I.C of this solicitation. After this date, no further questions will be addressed. A written response will be provided to all requestors of the solicitation. The questions may be faxed to E. Madison Winslow in the SCDHEC Bureau of Business Management at (803) 898-3505.

3. PROVISION FOR EARLY COMPLETION INCENTIVE: The SCDHEC will pay the Contractor an incentive of ten percent (10%) of the Cleanup Cost for early completion, subject to the conditions set forth in this provision. Payment will be made if the remediation goals on a given site have been met in accordance with the terms and conditions of this contract prior to the end of the Site Incentive Period, as established by the SCDHEC, and verified in accordance with Contract Item III.B.10.

   The Site Incentive Period will commence on the Corrective Action System Startup Date. A month starts at 12:00 Midnight on the same day of the month as the Corrective Action System Startup Date and ends at Midnight preceding the same day of the following month. Months will be consecutively counted from the corrective action system startup date. Following system startup at a site, the SCDHEC will provide the Contractor notice in writing of the closing date of the Site Incentive Period for that site.

   The Site Incentive Period will not be adjusted for any reason, cause or circumstance whatsoever, regardless of fault, save and except in the instance of a catastrophic occurrence directly and substantially affecting the Contractor's operations and resulting in unavoidable delay of the cleanup. In the event of a catastrophic occurrence on a specific site, the SCDHEC shall determine the number of months reasonably necessary and due solely to such catastrophic occurrence to extend the Site Incentive Period. Any amendments to the Site Incentive Period will be provided to the Contractor in writing.

   The parties anticipate that routine delays may be caused by or arise from any number of events during the course of site rehabilitation, including, but not limited to, work performed, work deleted, supplemental agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, extra work, right of way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, expansion of the scopes of the projects by the Contractor to make them functional, weather, weekends, holidays, suspensions of the Contractor's operations, or other such events, forces or factors experienced in environmental work. Such delays or events and their potential impacts on performance by the Contractor are specifically contemplated and acknowledged by the Contractor in entering into this Contract, and shall not affect the Site Incentive Periods or incentives set forth above. Further, any and all costs or impacts whatsoever incurred by the Contractor in accelerating the Contractor's work to overcome or absorb such delays or events in an effort to complete the sites within the Site Incentive Periods, regardless of whether the Contractor successfully does so or not, shall be the sole responsibility of the Contractor in every instance.

The Contractor shall have no rights under the Contract to make any claim arising out of this incentive provision except as is expressly set forth in this provision. The Site Incentive Periods for these projects are as follows:

Permit #	Site Name	Appendix	Site Incentive Period
07631	Hess 40245	A	30 months

4. SITE SPECIFIC DETAILS: Brief technical summary of the release, including location map and specifics of existing wells for the site are attached in Appendix A. The complete technical file for the site will be available for review through the Freedom of Information (FOI) Office located at the Stern Building, 8911 Farrow Road, Columbia, SC. **Offerors are strongly encouraged to review the files to ensure a complete understanding of the project requirements. The successful offeror will be responsible for all information in the technical files.** Appointments to view the technical files may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling the SCDHEC Freedom of Information Office at (803) 898-3882. **NOTE: Free-phase product may be present at these sites. The application of corrective action technologies or natural fluctuations in the water table can result in the mobilization or possible appearance of free-phase product or elevated CoC concentrations in the monitoring wells.**

III. SPECIFICATIONS for CORRECTIVE ACTION

A. GENERAL SPECIFICATIONS

1. SUBMITTALS: All offerors must meet the following specifications for the site as required by the proposed treatment method(s) or corrective action technology(ies). Submit the Corrective Action Solicitation Response. The response will outline in general terms an approach to achieve the remediation goals (e.g., reduction of each CoC to SSTL). The proposal must outline the following:
   a) A description of the proposed treatment method(s) or technology(ies) for corrective action.
   b) The amount of time in months to complete site rehabilitation to meet the remediation goals, install verification wells, and remove or abandon all assessment and remediation items.
   c) The total cost (in U.S. dollars) to complete site rehabilitation to meet the remediation goals and to remove or abandon all assessment and remediation items.

2. MINIMUM REQUIREMENTS: Corrective action will be considered complete once the levels of CoC are verified to be at or below the SSTLs listed in the Appendix for that site and SSTLs calculated for any point in the area of concern, and all remediation and assessment items installed by the contractor (e.g., wells [including pre-existing wells], trenches, etc.) are removed or abandoned. See Contract Item III.B.10 for the method of verification. All rehabilitation activities associated with a UST release must be performed by a SCDHEC certified Class I Site Rehabilitation Contractor as required by R.61-98. All corrective action plans and reports must be sealed by a Professional Engineer or Professional Geologist registered in the State of South Carolina. All engineering reports, drawings and plans must be sealed by a Professional Engineer registered in the State of South Carolina. All laboratory analysis for CoC must be performed by a SC certified laboratory. All monitoring, verification, injection, or recovery wells must be installed and abandoned by a SC certified well driller. The corrective action methods or technologies will be

designed to prevent vapors from entering onsite or adjacent structures. All applicable certification, training, permits, applications, and fees associated with well installation; injection, discharge, treatment, or transportation of groundwater, air, or soil; construction or operation of a remediation system; and any other action requiring a permit are the responsibility of the contractor. Any required business or occupation license and occupational safety and health training (e.g., OSHA) as defined by the laws and regulations of the United States of America, the State of South Carolina, the county or city is also the responsibility of the contractor. The terms and conditions of all applicable permits will be met. Any contaminated groundwater, soil, or construction material must be properly transported and disposed of, or treated at an approved facility with prior approval from SCDHEC. Any costs for utilities construction and service (electric, telephone, sewer, etc.) required by the corrective action are the responsibility of the contractor.

B. PERFORMANCE REQUIREMENTS

1. CORRECTIVE ACTION PLAN: The successful contractor must complete and submit a detailed Corrective Action Plan for the site in the Appendix within 30 days from the date the Purchase Order is issued by the Bureau of Business Management. Copies of the CAP must be distributed in accordance with Section II.A.8. **NOTE: Use of monitoring well(s) for injection, extraction, or free-phase product recovery purposes is not allowed.** A condition of the CAP may include installation of additional recovery, sparge, compliance, or injection wells. The CAP must define all active (pump and treat, sparge, vapor extraction, excavation of impacted soils, bioremediation, etc.) and passive (intrinsic remediation, monitoring, etc.) corrective action method(s) proposed to reduce CoC to SSTLs. It must be shown, by use of scientific models, computations, or discussion, how each CoC will be reduced to the SSTL for each remediation method proposed for the release. Any assumptions used in a model will be listed or shown, as well as appropriate references. All corrective action will require monitoring to verify remediation. General construction details will be included (e.g., install four additional recovery wells, construct a compliance point, install four air injection wells, excavate 3,000 cubic yards of impacted soils, etc.) as well as details of well abandonment and equipment removal. **The corrective action method(s) or technology(ies) will be designed to prevent vapors from entering onsite or adjacent structures.** A remediation timetable including abandonment of wells and removal of equipment will be included with each CAP. The Bureau of Land and Waste Management, UST Program will review each CAP and initiate a public notice period for a maximum of 30 days. The names and addresses of the owners of all impacted properties and all properties located adjacent to the impacted properties are provided in the appendix. The contractor may be required to attend and provide input at one or more public meetings upon request by SCDHEC. Any CAP amendments and modifications arising from public notice must be submitted within 15 days of notification by SCDHEC. The CAPs and any amendments or modifications must be sealed by a qualified Professional Geologist or Engineer registered in the State of South Carolina. The owner/operator of the site and any other affected property owners will be consulted and will approve the location of the corrective action systems. Permanent systems must be enclosed in fenced areas or small buildings.

2. PERMIT APPLICATIONS: Complete and submit all applications for permits (injection, NPDES, BAQC modeling form, thermal treatment, construction, etc.) with the CAP for each site. All submitted applications must comply with the requirements of the respective permitting program. Any required permit changes or corrections will be submitted within 15 days of notification by SCDHEC.

3. INITIAL MONITORING REPORT: An initial monitoring report documenting CoC concentrations in all wells and potentiometric conditions prior to start up must be submitted to the Bureau of Land and Waste Management, UST Program **within 45 days** after award. Copies of the initial monitoring report must be distributed in accordance with Section II.A.8.

   Based on naturally occurring conditions, the dissolved concentration of petroleum chemicals of concern (CoC) will increase or decrease. For the purposes of this contract, the total CoC concentration for the wells included in the bid package may reasonably increase up to 150 percent or decrease as much as 50 percent. If the total CoC concentration in all wells for any included site increases more than 150 percent based on this initial sampling or if measurable free-phase product that has not been previously documented in any report is detected during the initial sampling event, the contractor may request in writing that the award for that site be canceled. **If either of these conditions occurs, the contractor will contact the UST project manager within two days of problem identification and will submit written documentation within five days of notification.** The contractor will be reimbursed based on the following rate schedule:

Subcontract Costs*	Invoice + 15%
Personnel Mobilization	$ 125.00
Equipment Mobilization	$ 250.00
Groundwater Sample Collection	$ 35.00 each
Gauging Free-phase Product	$ 30.00 per well
Wastewater Disposal	$ 90.00 per drum
CAP Preparation and Assoc. Costs	$6,000.00

* Includes laboratory, drilling, electrical, etc.

   The rate schedule above does not apply in the event that the corrective action award is voided due to a breach of contract in accordance with Contract Item II.A.10. The contract will be amended to remove the site in question and the performance bond for that site will be returned to the contractor. If the total CoC concentration in all wells for any included site decreases more than 50 percent based on this initial sampling the SCDHEC may amend the award to remove the site in question. If the contract is amended by SCDHEC to remove a site, the contractor will be notified by certified letter and an invoice for the above outlined items for that site shall be submitted within 20 days from the date of the certified letter. If the corrective action system is started or treatment is performed, the contractor will be required to complete the contract unless circumstances as outlined in Contract Item II.A.11 are encountered. **Once CAP implementation has been initiated under this contract, in the event of a cancellation due to the prescribed circumstances and before any concentration reduction has been achieved, final payment will not exceed 40 percent of the award price under any circumstances as no reduction of CoC concentration has been accomplished.**

4. CORRECTIVE ACTION PLAN IMPLEMENTATION: After completing review of the CAP and all permit applications submitted for each site, the Bureau of Land and Waste Management, UST Program will issue a notice to proceed with CAP implementation. The contractor will implement the CAP within 30 days of receipt of the notice to proceed and any required permit to construct. Disruption to the normal business at the sites will be kept to a minimum. The contractor will repair the site to the condition that existed prior to installation of the corrective action system (e.g., asphalt

paved areas will be repaved with asphalt, concrete areas replaced with concrete, grass area will have soil replaced to the original grade and reseeded or sodded with grass, etc.). Upon completion of any required construction, SCDHEC will inspect the system and issue a permit to operate. The contractor will, at all times, keep the site free from waste materials and rubbish related to the corrective action. Until completion of the corrective action, the contractor will keep the premises in a clean, neat and workmanlike condition satisfactory to SCDHEC. All soil and wastewater generated on site will be removed from the site promptly. Manifests documenting the proper disposal of the soil and wastewater must be included in the appropriate report.

Implementation of the CAPs is not authorized until the contractor receives correspondence from the UST Program indicating that the required public notice period has been successfully completed and all permits have been issued. If premature implementation occurs, the UST Program will not reimburse those costs from the SUPERB Account, and the bid award will be reduced by that amount. If the SCDHEC agrees with early implementation to better protect human health in an emergency and provides approval in writing, early implementation without any reduction to the corrective action amount will be authorized.

5. PROPERTY ACCESS: Gain access to the adjacent properties to sample monitoring wells and to install any corrective action equipment, as required. The contractor will repair the adjacent properties to the conditions that existed prior to installation of the corrective action system (e.g., asphalt paved areas will be repaved with asphalt, concrete areas will be replaced with concrete, grass areas will have soil replaced to the original grade and reseeded or sodded with grass, etc.). The Contractor will be responsible for any equipment/wells installed on adjacent properties. Costs to repair/replace components of the remediation system damaged due to the actions of adjacent property owners cannot be paid by the SUPERB Account.

6. SYSTEM START-UP: The Contractor will initiate system startup within 15 days of receipt of the Permit to Operate, if required. Remediation as defined in the CAP will begin upon system startup. **If any problem with CAP implementation occurs, the contractor will contact the UST project manager for the site within 24 hours of problem identification and will submit written documentation within five days of notification.** ***NOTE: Free-phase product may be present at these sites. The application of corrective action technologies or natural fluctuations in the water table can result in the mobilization or possible appearance of free-phase product or elevated CoC concentrations in the monitoring wells***

7. REPORTING: Complete and submit a corrective action system evaluation (CASE) report on a quarterly basis. Deliver one electronic and one paper copy of each report to: SCDHEC, Bureau of Land and Waste Management, UST Program, 2600 Bull Street, Columbia, SC 29201. A copy of each report must be delivered to the parties listed on the Distribution List included in the appendix. The first quarter CASE report for each site is due within 90 days of the permit to operate. The CASE reports must include:

   A. A narrative portion that documents current site conditions, verification of system operation or CAP implementation, and system effectiveness in achieving the remediation goals (e.g., reducing CoC to the SSTLs) as outlined in the CAP. Any system down time and the associated reason(s) will be included in the report.
   B. Conclusions and recommendations based on the reported data.

C. Groundwater laboratory analytical data for all monitoring wells in the following format (additional parameters such as dissolved oxygen may be required):

Analytical Data (µg/l)

Monitoring Well	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
MW-1	7/15/97 10/15/97	145 140	200 190	146 140	1,000 900	170 50	47 165
MW-2	7/15/97 10/15/97	580 480	800 90	300 257	1,000 912	60 50	20 19

D. Groundwater potentiometric data for all monitoring wells in the following format:

Groundwater Data (feet)

Monitoring Well	Date	TOC Elevation	TOC to GW	TOC to FP	FP Thickness	GW Elevation
MW-1	7/15/97 10/15/97	98.0 98.0	17.54 17.90			80.46 80.10
MW-2	7/15/97 10/15/97	100.0 100.0	20.50 21.50	20.47 21.48	0.03 0.02	79.50 78.50

E. A groundwater elevation contour map of the site based on current groundwater potentiometric data.

F. A CoC map based upon current groundwater laboratory analytical data. The groundwater data should be adjacent to the relevant monitoring well using the following format (additional parameters such as dissolved oxygen may be required):

MW - Number
Benzene (µg/l)
Toluene (µg/l)
Ethylbenzene (µg/l)
Xylenes (µg/l)
MTBE (µg/l)
Naphthalene (µg/l)

G. Calculation of CoC concentration reduction as outlined in Contract Item II.A.9.B.1.

H. A copy of the SCDHEC approval letter and manifests for any contaminated soil and groundwater removed from the site for treatment and/or disposal.

I. Additional data required by permits (e.g., air analyses, wastewater effluent analyses and amounts, etc.). The data should be reported on a form or in a format specified in the permits, and attached to the monitoring report as an addendum.

All rehabilitation activities associated with the UST releases must be performed by a SCDHEC Certified Class I Site Rehabilitation Contractor. All air, soil, and groundwater analyses must be performed by a South Carolina certified laboratory. The corrective action monitoring reports must be sealed by a Professional Engineer or Geologist registered in the State of South Carolina. All monitoring wells, water supply wells, and surface water locations associated with each release will be sampled on a quarterly basis for the first year following implementation/system start-up. CASE reports must be submitted in accordance with the established monitoring schedule regardless of the operational status of the corrective action system. Thereafter, the number of monitoring wells sampled may be reduced or the interval between CASE reports may be lengthened upon clear demonstration of CoC reduction, unless restricted by permit requirements. Approval of any reduction in the number of wells to be sampled or change in the interval between submittal of CASE reports is at the sole discretion of SCDHEC. Any approval to reduce the number of wells sampled or the frequency of sampling must be in writing from the UST Program. SCDHEC may require data to be reported on a form or in a specific format. The contractor will be provided with the proper report forms and format prior to system startup. The contractor will be notified of any revisions to the report forms or format 90 days prior to the due date for the next CASE report.

8. GROUNDWATER & ADDITIONAL SAMPLING: Collect one (1) water sample per monitoring event for all monitoring wells, water supply wells, and surface water locations associated with the release (see Appendix). If free-phase product appears that was not documented in the baseline data, the thickness of product and depth to groundwater must be recorded to the nearest 0.01 foot. If required, the well shall be purged prior to sampling and pH, temperature, dissolved oxygen, and specific conductance recorded. For those monitoring wells where the water level is within the screened interval, groundwater samples should be collected without purging. For those monitoring wells where the water level is not within the screened interval, purging must be conducted. All water supply wells must be purged prior to sampling. Purging is considered complete once three well volumes have been removed or the pH, temperature, dissolved oxygen, and specific conductance have equilibrated, yielding two consecutive readings with all parameters within ±10 percent, whichever comes first. Sampling logs should note all field measurements, as well as the location and type of each sample submitted for laboratory analysis. Each groundwater sample will be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples must be analyzed for the parameters listed in the appendix.

   Additional samples (air, groundwater, effluent, soil) required by permits must be collected in accordance with established QA/QC protocol and submitted to a certified laboratory for analysis. The samples will be analyzed for parameters stipulated in the permits. Sampling and analytical data for each sample (e.g., field sampling logs, chain of custody forms, certificates of analysis, and the lab certification number) will be included in the CASE report.

9. DISPOSAL: Properly dispose of all contaminated soil and groundwater generated during the implementation of the CAP and installation of verification wells. The disposal facility selected for treatment and disposal of any contaminated soil and groundwater must be a SCDHEC-approved facility. The owner/operator of the UST facility is considered the generator for any contaminated

soil and groundwater. The contractor must document disposal of contaminated soil and groundwater in the CASE reports.

10. QUALITY ASSURANCE: If the remediation technology is in-situ (e.g., pump and treat, air sparging, vapor extraction): suspend operation of the system once the remediation goals for all CoC have been maintained for a period of 30 days. Samples are to be taken one (1) quarter after the date established by the SCDHEC as the start of the post-remediation verification period and again after a second quarter. Along with the parameters listed in the appendix, the groundwater samples should also be analyzed for the following parameters:

Analyte	Analytical Method*	Reporting Limit (µg/l)
Dissolved Oxygen	SM4500-O G	500
Ferrous Iron	SM3500-Fe D	30
Methane	Kerr	1000
Nitrate	9056/9210	100
Sulfate	9038/9056	1000

*or EPA equivalent method that can achieve the same reporting level

If sample results indicate that the remediation goals are not sustained, the contractor must submit a corrective action status report (3 copies) that outlines the deficiency(ies) and offers recommendations for achieving the remediation goals with a revised timetable. Modifying and restarting of the system may be necessary. All remediation goals must be again maintained for a minimum of 30 days. Corrective action will then be suspended again and samples taken to verify that remediation goals are sustained. This cycle of activity, including status reports, will be repeated until all CoC levels remain below SSTLs for all wells listed in the appendix for two (2) consecutive quarters. Verification wells may be installed at locations and depths designated by SCDHEC (See Appendices for number of verification wells for each site). Costs for verification well installation are considered part of the Cleanup Cost. Each well will be sampled in accordance with Contract Item III.B.8 and the analyses compared to the calculated SSTLs for the CoC at that well location. If the laboratory analyses are at or below the SSTLs, corrective action will be considered complete. If any analyte is above the SSTL, the corrective action will not be considered complete, and the activity cycle described above must be repeated until all CoC levels remain below SSTLs for those wells listed in the appendix. Split or duplicate samples may be collected by SCDHEC (or its subcontractors) to verify achievement of remediation goals. In addition to the groundwater collected from the monitoring wells, the UST Program may provide up to three standards or prepared blanks for the contractor's laboratory to analyze. The laboratory analysis from the contractor's and the UST Program's laboratory will be compared. In the event of substantial variance (more than 15%), a second sampling event with field and trip blanks will be sent to a SC certified laboratory by the UST Program for analysis. The contractor will be notified when the wells will be resampled, can observe this second sampling event, and will be provided analytical results for comment. SCDHEC Laboratory Certification will be provided copies of all sample data sets with all relevant quality assurance/quality control data to assist the UST program in

determining the cause of a laboratory variation. The Director of the Assessment and Corrective Action Division will make the final decision on which analytical values will be the basis for payment or closure with input from the site rehabilitation contractor, SCDHEC Laboratory Certification, the UST Section Manager, and the UST Project Manager. The site rehabilitation contractor will be provided a written record of any decision. **At least two weeks notice will be provided to the UST Project Manager prior to mobilizing to the site for sampling to verify attainment of remediation goals.** Costs for transportation and analysis of split or duplicate samples will be paid by SCDHEC.

11. DEMOBILIZATION: Disassemble and remove the remediation system and all associated remediation items including utilities from each site within 60 days of notification by SCDHEC that the remediation goal for the release associated with the UST(s) at each site has been achieved. Disruption to the site's normal business will be kept to a minimum.

12. SITE RESTORATION: Properly abandon all monitoring, recovery, and/or injection wells (including pre-existing wells), borings, trenches, and piping/utility runs installed by the contractor as part of corrective action within 60 days of notification by SCDHEC that the remediation goal for the release associated with the UST(s) at the site has been achieved. The abandonment will be in accordance with South Carolina Well Standards and Regulations R. 61-71 and accepted industry standards for abandonment of trenches and piping/utility runs. Disruption to the property owner's normal business will be kept to a minimum. The contractor must notify SCDHEC of the method of well abandonment and final disposal of any contaminated soil or groundwater. The contractor will return the site to the condition prior to corrective action (e.g., asphalt paved areas will be repaved with asphalt, concrete areas will be replaced with concrete, grass areas will have soil replaced to the original grade and reseeded or sodded with grass, etc.).

13. COMPLETION NOTICE: The Contractor shall provide the SCDHEC with written notice at least two weeks prior to Completion. This will allow the Project Manager and Contractor time to jointly inspect the project and, if necessary, make a Completion Punch List of work to be finished. Items on the Punch List may include, but are not limited to well abandonment, pavement repair, debris removal, etc. The date of Completion will be determined by the Project Manager when all Punch List work is completed.

IV. BID AWARD

A. ACCEPTANCE and DELIVERY STATEMENT

In compliance with the solicitation and subject to all conditions thereof, the offeror agrees, if this bid is accepted within _____ days from date of opening, to complete the corrective action as specified at the prices set forth for all sites as stated below.

For the purpose of this submittal and acceptance of financial approval should it occur, I certify that this company understands the nature of the releases and the geologic conditions at these sites as documented in the technical files and this solicitation. **Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the bid price.** Additionally, I certify that this company understands that acceptance is based on total cost to treat the areas of concern.

_____ Certification No. _____
Contractor (Print)

_____ _____
Authorized Representative (Print) Signature

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions:

SITE A –Hess 40245, (UST Permit #07631), 7351 Two Notch Rd., Columbia SC, South Carolina.

1. The corrective action method(s) or technology(ies) that will be proposed in the CAP will be:
   _____
   _____
   _____

2. The Corrective Action Completion Time, in months, to complete the corrective action from the date of corrective action system startup until corrective action goals are met is _____ months.

3. The Corrective Action Cost, in whole dollars, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern (see Appendix A, Figure #3) such that the levels of CoC do not exceed the site-specific target levels (SSTLs) defined in Contract Item II.A.9.C at any point, complete all associated monitoring and post-remediation verification, prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon or remove all assessment and remediation items installed as part of corrective action; provide evidence of performance bond; and other items outlined in this solicitation is:

$_____

PLEASE READ THE FOLLOWING CAREFULLY PRIOR TO COMPLETING BID

INSTRUCTIONS TO BIDDERS

DISCUSSIONS AND NEGOTIATIONS: By submission of a bid, bidder agrees that during the period following issuance of this solicitation and prior to notification of intent or award of a contract, the bidder shall not discuss this procurement with any party except members of the DHEC Procurement Division or other parties designated in this solicitation. Bidder shall not discuss or attempt to negotiate with the using area or program any aspects of the procurement without prior approval of the DHEC Procurement Division Buyer responsible for the procurement. Infractions may result in rejection of the violator's bid.

1. Unless otherwise required herein, only one signed copy of the invitation to bid is required.
2. Bids "faxed" directly to the DHEC Procurement Office will not be accepted or considered for award.
3. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid opening. It is the bidder's sole responsibility to insure that these documents are received by the person (or office) at the time indicated in this solicitation document. DHEC Underground Storage Tank Environmental Remediation Procedures shall govern any withdrawal request received after the time of the bid opening.
4. When specifications or descriptive papers are submitted with the bid submission, enter bidder's name thereon.
5. Submit your signed bid on this form. Show the bid number on the envelope as instructed. DHEC assumes no responsibility for unmarked or improperly marked envelopes. All envelopes received showing a bid number are placed directly under locked security until the date and time of opening. Do not include more than one bid invitation per envelope. If directing any other correspondence, address the envelope to the Procurement Officer but do not include the bid number on the envelope since it does not include your bid.
6. Bidders must clearly mark as "CONFIDENTIAL" each part of their bid which they consider to be proprietary information that could be **exempt from disclosure** under Section 30-4-40, Code of Laws of South Carolina 1976 (1986 Cum. Supp.; Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. DHEC reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the State, DHEC or its agents for its determination in this regard.
7. By submission of a bid, **you are guaranteeing** that all goods and services meet the requirements of this solicitation during the contract period.
8. Tie **bids** will be resolved as outlined in DHEC Underground Storage Tank Environmental Remediation Procedures.
9. **Do not include any taxes** that DHEC may be required to pay in the bid price. Upon submission of a bid by a state agency, the Procurement Officer will compute a 5% sales and use tax to the non-state agency bids when applicable (service and labor excluded) in determining the low bidder. This procedure conforms to the SC Tax Commission Sales and Use Tax Regulation 117-174-.95.
10. **Correction of errors on this bid form:** All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Erasures or use of typewriter correction fluid may be cause for rejection. No bid shall be altered or amended after the time specified for the bid opening.
11. **Ambiguous bids** that are uncertain as to terms, delivery, quantity, or compliance with this solicitation may be rejected or otherwise disregarded.
12. Any bidder desiring to exercise a grievance may do so under section IV of DHEC Underground Storage Tank Environmental Remediation Procedures. All correspondence should be directed to the Director of Procurement Services, Bureau of Business Management, 2600 Bull Street, Columbia, SC 29201.
13. **Failure to respond** to three consecutive bid notices may result in removal of bidder's name from the mailing list.

GENERAL PROVISIONS

14. DHEC reserves the right to reject any and all bids, and to cancel this solicitation.
15. **Unit prices** will govern over extended prices unless otherwise stated in this solicitation.
16. **Prohibition of Gratuities:** Amended section 8-13-420 of the 1976 Code of Laws of South Carolina States: "Whoever gives or offers to any public official or public employee any compensation, including a promise of future employment, to influence his action, vote, opinion or judgment as a public official or public employee or such public official solicits or accepts such compensation to influence his action, vote, opinion or judgment shall be subject to the punishment as provided by Section 16-9-210 and Section 16-9-220. The provisions of this section shall not apply to political contributions unless such contributions are conditioned upon the performance of specific actions of the person accepting such

contribution nor shall they prohibit a parent, grand-parent or relative from making a gift to a child, grandchild, or other close relative for love and affection except as hereafter provided".

17. **Bidder's Qualification:** Bidders must, upon request of DHEC, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. DHEC reserves the right to make the final determination as to the bidder's ability to provide the products or services requested herein.
18. **Bidder's Responsibility:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this solicitation. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the subsequent contract.
19. **Amendments:** All amendments to and interpretations of this solicitation shall be in writing from the DHEC Procurement Office. Neither DHEC nor the Procurement Officer shall be legally bound by any amendment or interpretation that is not in writing.
20. **Award Criteria:** Award shall be as indicated herein to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in this solicitation. Award may take longer than fourteen days. A copy of the award notice should be posted on Procurement Services' website at: dhec.sc.gov/procurement.
21. **Rejection:** DHEC reserves the right to reject any bid that contains prices for individual items or services that are unreasonable when compared to the same or other bids if the rejection is in the best interest of the State.
22. **Competition:** This solicitation is intended to promote competition. If the language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested bidders to notify the DHEC Procurement Office in writing so as to be received five days prior to the opening date. Notification may be "faxed" to the DHEC Procurement Office, (803) 898-3505. The solicitation may or may not be changed but a review of such notification will be made prior to award.
23. **Order of Precedence:** In the event of inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order; (A) the bidding schedule, (B) the specifications, (C) general conditions, (D) special provisions or special conditions of the contract whether incorporated by reference or otherwise, and (E) instruction to bidders.

GENERAL CONDITIONS

24. **Contract Administration:** Questions or problems arising after award of this solicitation/contract shall be directed to the DHEC Procurement Office, 2600 Bull Street, Columbia, SC, 29201. Reference the solicitation and contract number.
25. **Default:** In case of default by the contractor, DHEC reserves the right to purchase any or all items in default in the open market, charging the contractor with any additional costs. The defaulting contractor shall not be considered a responsible bidder until the assessed charge has been satisfied.
26. **Save Harmless:** (This General Condition does not apply to solicitations for service requirements). The successful bidder shall indemnify and save harmless the State of South Carolina and DHEC and all its officers, agents and employees from all suits or claims of any character brought by reason of infringing on any patent, trade mark or copyright. The bidder shall have no liability to DHEC if such patent, trademark or copyright infringement or claim is based upon the bidder's use of material furnished to the bidder by the State.
27. **Publicity Releases:** By submission of a bid, the contractor agrees not to refer to award of this contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by DHEC or user.
28. **Tax Credit Availability:** Bidders interested in income tax credit availability by subcontracting with Certified Minority Firms should contact the Office of Minority Business Assistance, 1205 Pendleton Street, Columbia, SC, 29201. (803-734-0562)
29. **Affirmative Action:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.
30. **Assignment:** Unless otherwise indicated in this solicitation, no contract or its provisions may be assigned, sublet, subcontracted, or transferred without the prior written consent of the DHEC Procurement Office.
31. **Termination:** Any contract resulting from this solicitation may be terminated by DHEC by providing a thirty-day advance notice in writing to the successful contractor.
32. **Non-Appropriations:** Any contract entered into by DHEC resulting from this solicitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period or appropriated year.

33. **Convenience:** In the event that this contract is terminated or canceled upon request and for the convenience of DHEC without the required thirty days advance written notification, then DHEC shall negotiate reasonable applicable termination costs.
34. **Cause:** Any contract resulting from this solicitation may be terminated without advance notice by DHEC for cause, default or negligence on the part of the successful contractor.
35. **S.C. Law Clause:** Upon award of a contract under this bid, the person/partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State. By submission of a bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses or fees levied by the State of South Carolina.
36. **Quality of Product:** (This general condition does not apply to solicitations for printing or service requirements.) Unless otherwise indicated in this solicitation, it is understood and agreed that any item offered or shipped as a result of this solicitation shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging. If items that are other than new (i.e., remanufactured or refurbished) are desired to be bid, the bidder must obtain written permission to bid such items at least five days in advance of the bid opening date. Written permission must be obtained from the DHEC Procurement Office.
37. **Compliance with Federal Requirements:** S.C. State or Federal requirements that are more restrictive shall be followed in bidding, awarding and performance of this contract.
38. **Drug-Free Workplace:** Required by Section 44-107-10 (Drug Free Work-Place Act) of the SC Code of Laws, 1976, as amended. By submission of a bid, the bidder certifies that he will comply with all aspects of the Drug-Free Workplace Act and will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance in the performance of this contract. This certification also applies to any individual or firm employed by the contractor.
39. **Confidentiality Policy:** The successful contractor agrees to abide by DHEC's policy of confidentiality which states in part that all information as to personal facts and circumstances given or made available to employees and/or contractors of DHEC in administration of programs shall be held confidential and shall not be divulged without the express written consent of the individual(s) to which it pertains.
40. **Item Substitution:** No substitution of items will be allowed on any purchase made from the awarded contract without written permission from the DHEC Procurement Office.
41. **Outside Contractor Program:** If applicable to scope of contract, contracted employees working on DHEC properties are entitled to information about hazardous chemicals present at DHEC; and DHEC's personnel are entitled to information about hazardous chemicals brought to the facilities by contractors. In order to assure continued compliance with the Hazard Communication Standards while contractors are on DHEC property and to control potential compliance obligations under the Superfund Amendments and Re-authorization Act, it is DHEC's policy to:

    A. Obtain written assurance that the contractor's employees have been trained to understand the hazards of the chemicals at DHEC and how to use appropriate personal protective equipment. All personal protective equipment and training required for the contractor's employees will be provided by the contractor at the contractor's expense. (This includes SC State General Services employees).

    B. Require the contractor to notify the DHEC Bureau of Business Management or the appropriate DHEC unit Director when introducing hazardous chemicals into DHEC work areas, which may harmfully expose DHEC employees. If the contractor is introducing such hazardous chemicals into any DHEC facility or onto DHEC property, the contractor shall provide the DHEC Division of Procurement Services or the DHEC unit Director copies of the Material Safety Data Sheets (MSDS) for those chemicals. The DHEC Division of Procurement Services or the DHEC unit Director should provide appropriate information to the DHEC employees before the contractor(s) enter any DHEC facility with chemicals.

    C. DHEC reserves the right to refuse to allow any contractor to bring any chemical onto DHEC property. The Department also reserves the right to refuse to allow any contractor to bring certain quantities of chemicals on DHEC property.

Appendix A

Distribution List for Plans and Reports

Responsible Party:

Mr. Donald Bull
Hess Corporation
1 Hess Plaza
Woodbridge NJ 07095

Adjacent Property Owners:

Parcel R17005-02-06 7325 Two Notch Rd	Friedman Family LTD Partnership PO Box 12397 Columbia SC 29211	MW-29 through MW-36D, MW-38, MW-39
Parcel R17005-02-18B 7371 Two Notch Rd	Hugh Palmer Irene Palmer Estate PO Box 23489 Columbia SC 29224	MW-24 through MW-26

Table of Current CoC Concentrations in Groundwater

CoC concentrations requiring reduction in parts per billion (µg/l) based on August 29-30, 2007 sampling:

Well	Benzene	Toluene	Ethylben.	Xylene	Naph.	MtBE	TAA	TBA	Total
MW-1R	**3680**	**21.6**	**245**	**92.3**	**1240**	**89.9**	**<1000**	**2520**	**8888.8**
MW-2	**635**	**14.3**	**1110**	**2870**	**208**	**61.5**	**<1000**	**<500**	**6398.8**
MW-5	**<1**	**<1**	**<1**	**<2**	**<1**	**21.5**	**158**	**1070**	**1255.5**
MW-6	**<1**	**<1**	**<1**	**2.2**	**10.1**	**2.8**	**155**	**<50**	**223.1**
MW-7	**2.9**	**<1**	**<1**	**2**	**2.5**	**18**	**892**	**10,200**	**11,119.4**
MW-8	**16.1**	**6.5**	**4.6**	**26.7**	**29.6**	**6.7**	**189**	**484**	**763.2**
MW-9	<1	<1	<1	<2	<1	3	<100	<50	
MW-10	**415**	**1.1**	**276**	**176**	**153**	**29.1**	**183**	**791**	**2024.2**
MW-11D	**<1**	**1.1**	**<1**	**2.2**	**<1**	**7.6**	**251**	**1940**	**2204.9**
MW-12	**407**	**<5**	**367**	**745**	**33.7**	**6.8**	**<500**	**<250**	**2314.5**
MW-13	<1	<1	<1	2	3.1	7.1	260	<50	
MW-14D	**<1**	**<1**	**<1**	**2.6**	**<1**	**9**	**497**	**4390**	**4902.6**
MW-15	<1	<1	<1	<2	<1	1.8	<100	<50	
MW-16	**83.7**	**7.1**	**71.5**	**155**	**15.8**	**<1**	**<100**	**<50**	**484.1**
MW-17	<1	<1	<1	2.1	<1	8.6	116	531	
MW-18	<1	<1	<1	<2	<1	5.1	<100	<50	
MW-19	**7.3**	**1**	**<1**	**3.7**	**66.8**	**14.6**	**980**	**12,300**	**13,374.4**
MW-20	<1	<1	<1	<2	<1	3.5	<100	<50	
MW-21	**5.1**	**<1**	**<1**	**2.4**	**28.9**	**5.4**	**435**	**<50**	**528.8**
MW-22	<1	<1	<1	<2	<1	3.7	<100	128	
MW-23D	<1	<1	<1	<2	<1	<1	<100	50	
MW-24	<1	<1	<1	<2	<1	<1	<100	<50	
MW-25	<1	<1	<1	<2	<1	<1	<100	<50	
MW-26	<1	<1	<1	<2	<1	<1	<100	<50	
MW-27D	<1	<1	<1	<2	<1	<1	<100	<50	
MW-28D	<1	<1	<1	<2	<1	<1	<100	<50	
MW-29	<1	<1	<1	<2	<1	<1	<100	<50	
MW-30D	<1	<1	<1	<2	<1	<1	<100	<50	
MW-31	<1	<1	<1	<2	<1	<1	<100	<50	
MW-32D	<1	<1	<1	2.3	<1	<1	<100	<50	
MW-33	<1	<1	<1	<2	<1	<1	<100	<50	
MW-34D	<1	<1	<1	<2	<1	<1	<100	<50	
MW-35	<1	<1	<1	<2	<1	<1	<100	<50	
MW-36D	<1	2.3	<1	<2	<1	<1	<100	<50	
MW-37	**<1**	**<1**	**<1**	**<2**	**<1**	**4.6**	**<100**	**528**	**638.6**
MW-38	<1	<1	<1	<2	<1	<1	<100	<50	
MW-39	<1	<1	<1	<2	<1	<1	<100	<50	
CS-1	**<1**	**<1**	**<1**	**<2**	**<1**	**<1**	**<100**	**<50**	**157**
CS-2	**<1**	**<1**	**<1**	**<2**	**<1**	**<1**	**<100**	**<50**	**157**
CS-3	**<1**	**<1**	**<1**	**<2**	**<1**	**<1**	**<100**	**<50**	**157**
Initial Conc.*	5260.1	66.7	2085.1	4090.1	1795.4	281.5	6740	35,273	55,591.9
SSTL Conc.	119	66.7	2085.1	4090.1	297.6	281.5	3743	13,990	24,673
Initial Conc. > SSTL	5141.1	0	0	0	1497.8	0	2997	21,283	30,918.9

*CoC concentations may vary due to seasonal fluctuations in the groundwater.

Please see Table 3, Summary of Groundwater and Surface Water Quality, and Table 4, Summary of Groundwater Quality, 8-Oxygenates, for the concentrations of chemicals of concern in Injection Wells IW-1 through IW-34 on March 7, 2007. Please note that concentrations in the injection wells indicate that free-phase product may be present and that free-phase product was detected in the injection wells in June 2006. The injection wells may be used for remediation.

Table of SSTLs

Site-specific target levels (SSTLs) for interim payment under this solicitation in parts per billion (µg/l).

Well	Benzene	Toluene	Ethylben.	Xylene	Naph.	MtBE	TAA	TBA
MW-1R	14	21.6*	245*	92.3*	44	89.9*	382	2192
MW-2	10	14.3*	1110	2870*	37	61.5*	333	500**
MW-5	1**	1**	1**	2**	1**	21.5*	158*	1070*
MW-6	1**	1**	1**	2.2*	10.1*	2.8*	155*	50**
MW-7	2.9*	1**	1**	2*	2.5*	18*	266	1542
MW-8	16.1*	6.5*	4.6*	26.7*	29.6*	6.7*	189*	484*
MW-10	27	1.1*	276*	176*	64	29.1*	183*	791*
MW-11D	1**	1.1*	1**	2.2*	1**	7.6	251*	1940*
MW-12	11	5**	367*	745*	33.7*	6.8*	343	250**
MW-14D	1**	1**	1**	2.6*	1**	9**	497*	2980
MW-16	20	7.1*	71.5*	155*	15.8*	1**	100**	50**
MW-19	5	1*	1**	3.7*	25	14.6*	242	1413
MW-21	5	1**	1**	2.4*	28.9*	5.4*	244	50**
MW-37	1**	1**	1**	2**	1**	4.6*	100**	528*
CS-1	1**	1**	1**	2**	1**	1**	100**	50**
CS-2	1**	1**	1**	2**	1**	1**	100**	50**
CS-3	1**	1**	1**	2**	1**	1**	100**	50**
Total	119	66.7	2085.1	4090.1	297.6	281.5	3743	13,990

* Laboratory analysis is less than calculated SSTL. SSTL is set equal to laboratory analysis.

** Laboratory analysis is below detection limit. SSTL is set equal to detection limit.

Table of Analytical Parameters

Analyte	Analytical Method*	Reporting Limit
BTEX*	8260B	5 µg/l
Naphthalene*	8260B	5 µg/l
MTBE*	8260B	5 µg/l
8-Oxygenates	8260B	5 µg/l

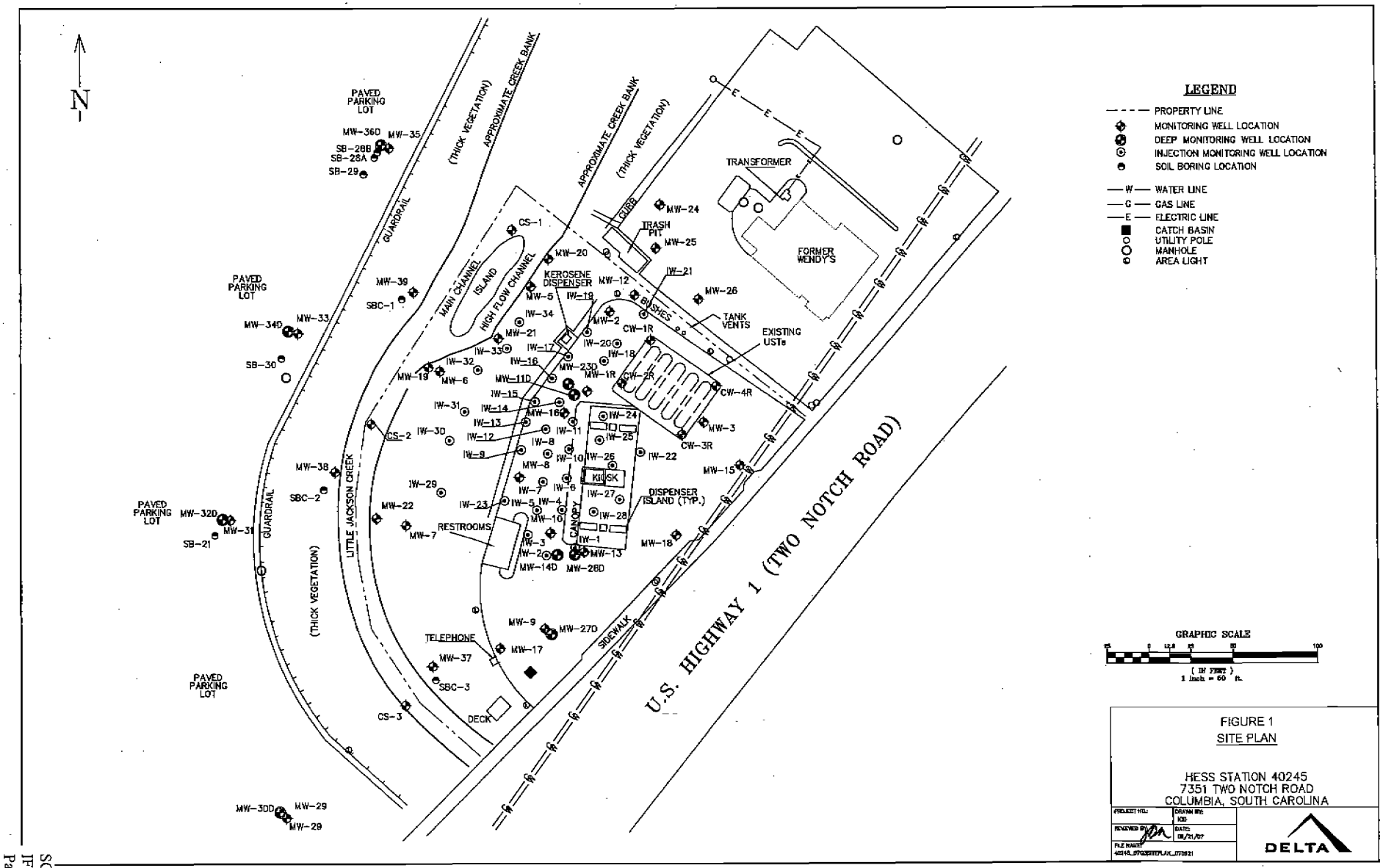
* The Bureau of Land and Waste Management UST Program no longer accepts equivalent analytical methods for VOC analysis.

The above analyses are required for sampling.

Verification Wells

Three verification wells may be installed during the post-corrective action monitoring period at locations and depths designated by the UST Program. Costs for the well installation are considered part of the approved Corrective Action Cost. The Program will calculate SSTLs for the verification wells and provide the data to the Contractor in writing. During verification, all wells must be sampled for the parameters listed above as well as the following parameters.

Analyte	Analytical Method*	Reporting Limit
Dissolved Oxygen	SM4500-O G	500 µg/l
Ferrous Iron	SM3500-Fe D	30 µg/l
Methane	Kerr Method	1 mg/l
Nitrate	9056/9210	100 µg/l
Sulfate	9038/9056	1000 µg/l


N
PAVED PARKING LOT
MW-36D
MW-35
SB-28B
SB-28A
SB-29
(THICK VEGETATION)
APPROXIMATE CREEK BANK
GUARDRAIL
CS-1
MW-20
MAIN CHANNEL
ISLAND
HIGH FLOW CHANNEL
KEROSENE DISPENSER
MW-5
IW-19
MW-12
IW-34
MW-2
IW-21
IW-33
IW-17
IW-20
IW-18
IW-32
IW-16
MW-23D
MW-1R
MW-19
MW-6
MW-11D
IW-15
IW-31
IW-14
MW-16
IW-13
IW-11
IW-30
IW-12
IW-8
IW-9
IW-10
IW-26
IW-22
MW-8
IW-29
IW-7
IW-6
IW-27
IW-23
IW-5
IW-4
MW-10
IW-28
MW-22
MW-7
RESTROOMS
IW-3
IW-1
IW-2
MW-13
MW-14D
MW-28D
CANOPY
KIOSK
DISPENSER ISLAND (TYP.)
MW-18
MW-15
IW-24
IW-25
CW-3R
MW-3
CW-4R
CW-2R
CW-1R
TANK VENTS
EXISTING USTs
BUSHES
MW-26
MW-21
MW-25
TRASH PIT
CURB
MW-24
TRANSFORMER
FORMER WENDY'S
APPROXIMATE CREEK BANK
(THICK VEGETATION)
MW-39
SBC-1
MW-34D
MW-33
SB-30
MW-38
SBC-2
CS-2
LITTLE JACKSON CREEK
GUARDRAIL
(THICK VEGETATION)
PAVED PARKING LOT
MW-32D
MW-31
SB-21
PAVED PARKING LOT
MW-9
MW-27D
TELEPHONE
MW-17
MW-37
SBC-3
CS-3
DECK
SIDEWALK
U.S. HIGHWAY 1 (TWO NOTCH ROAD)
MW-30D
MW-29
MW-29
LEGEND
PROPERTY LINE
MONITORING WELL LOCATION
DEEP MONITORING WELL LOCATION
INJECTION MONITORING WELL LOCATION
SOIL BORING LOCATION
W WATER LINE
G GAS LINE
E ELECTRIC LINE
CATCH BASIN
UTILITY POLE
MANHOLE
AREA LIGHT
GRAPHIC SCALE
1 inch = 60 ft.
FIGURE 1
SITE PLAN
HESS STATION 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA
DRAWN BY:
KDD
DATE:
08/21/07
DELTA

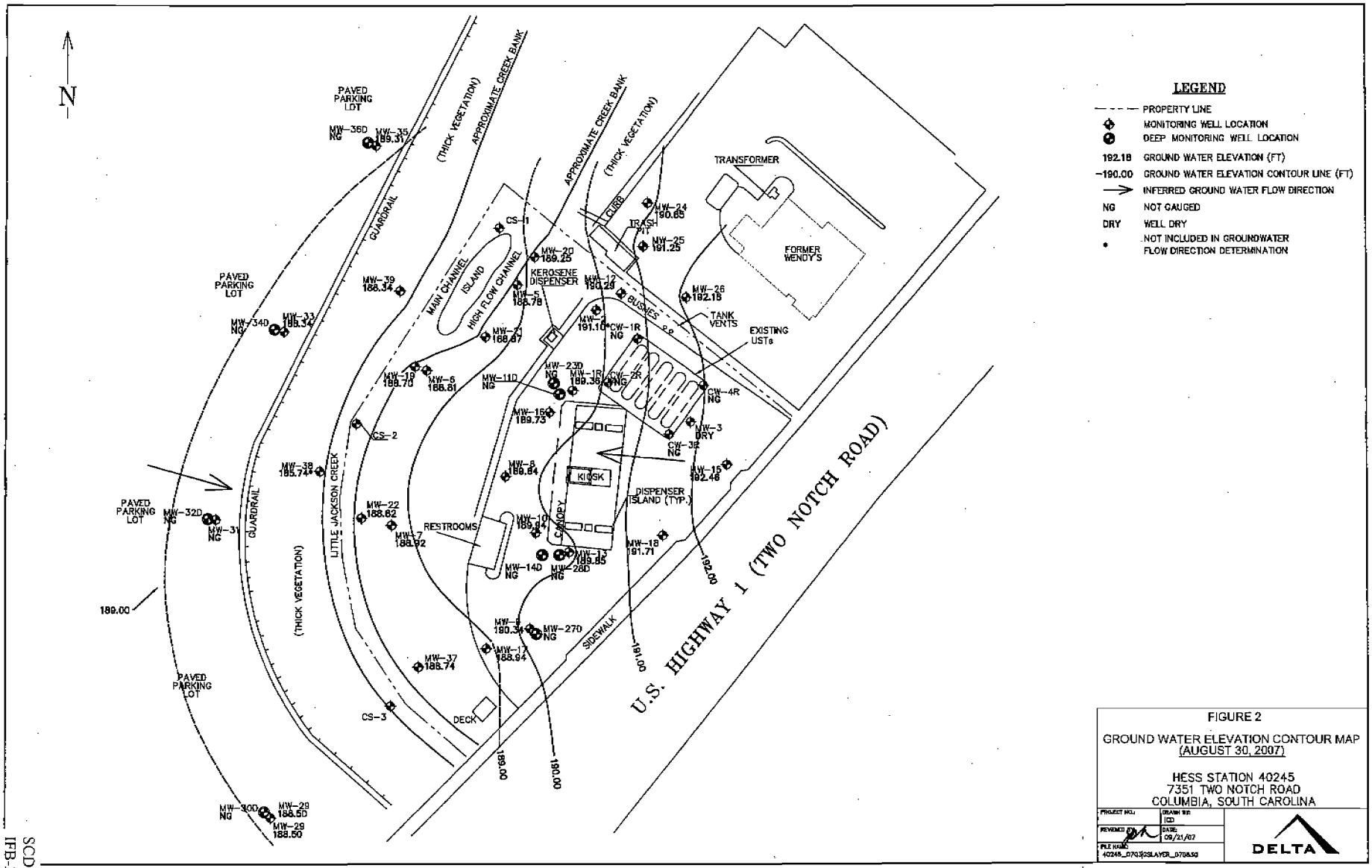


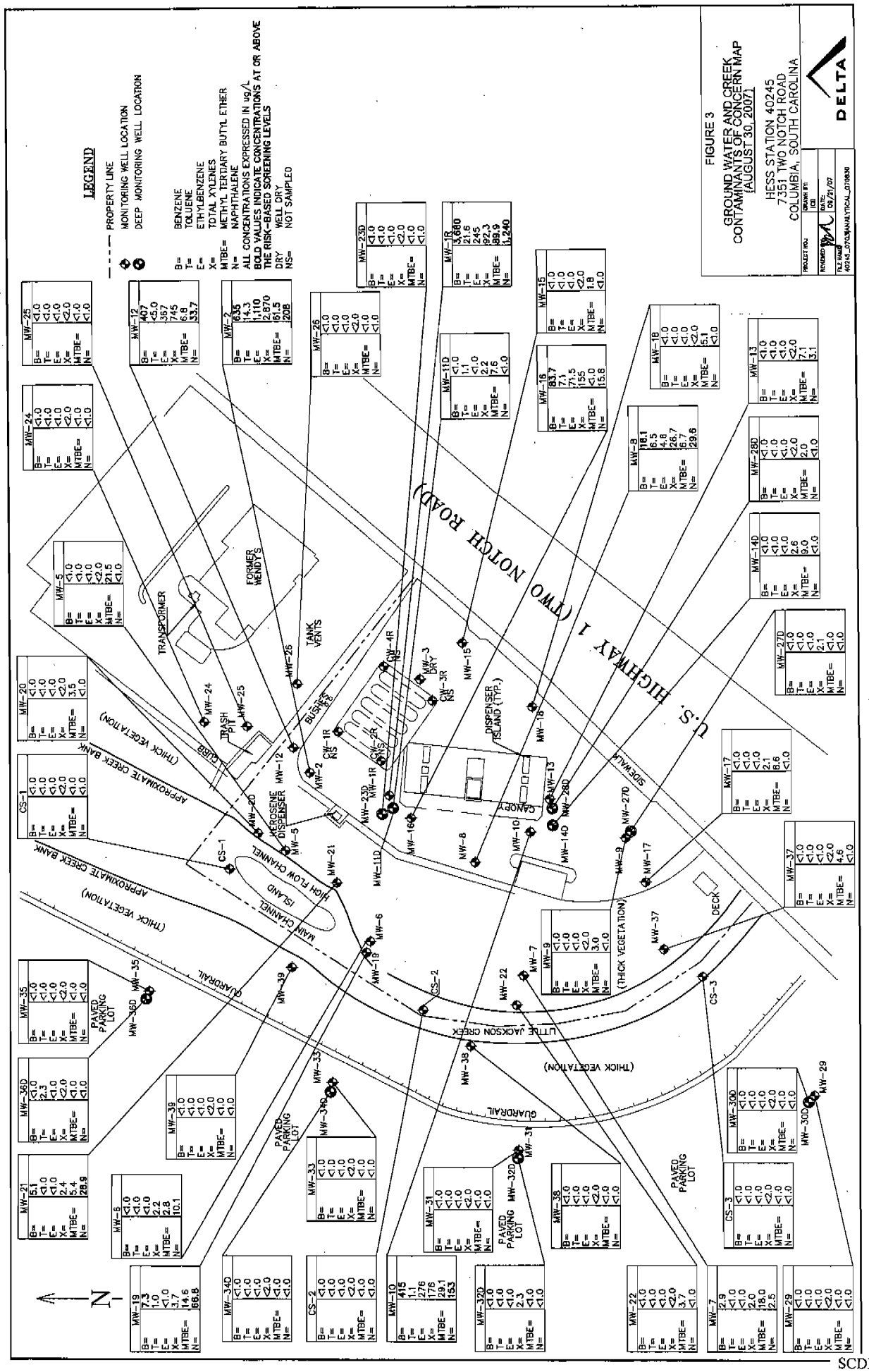
FIGURE 2

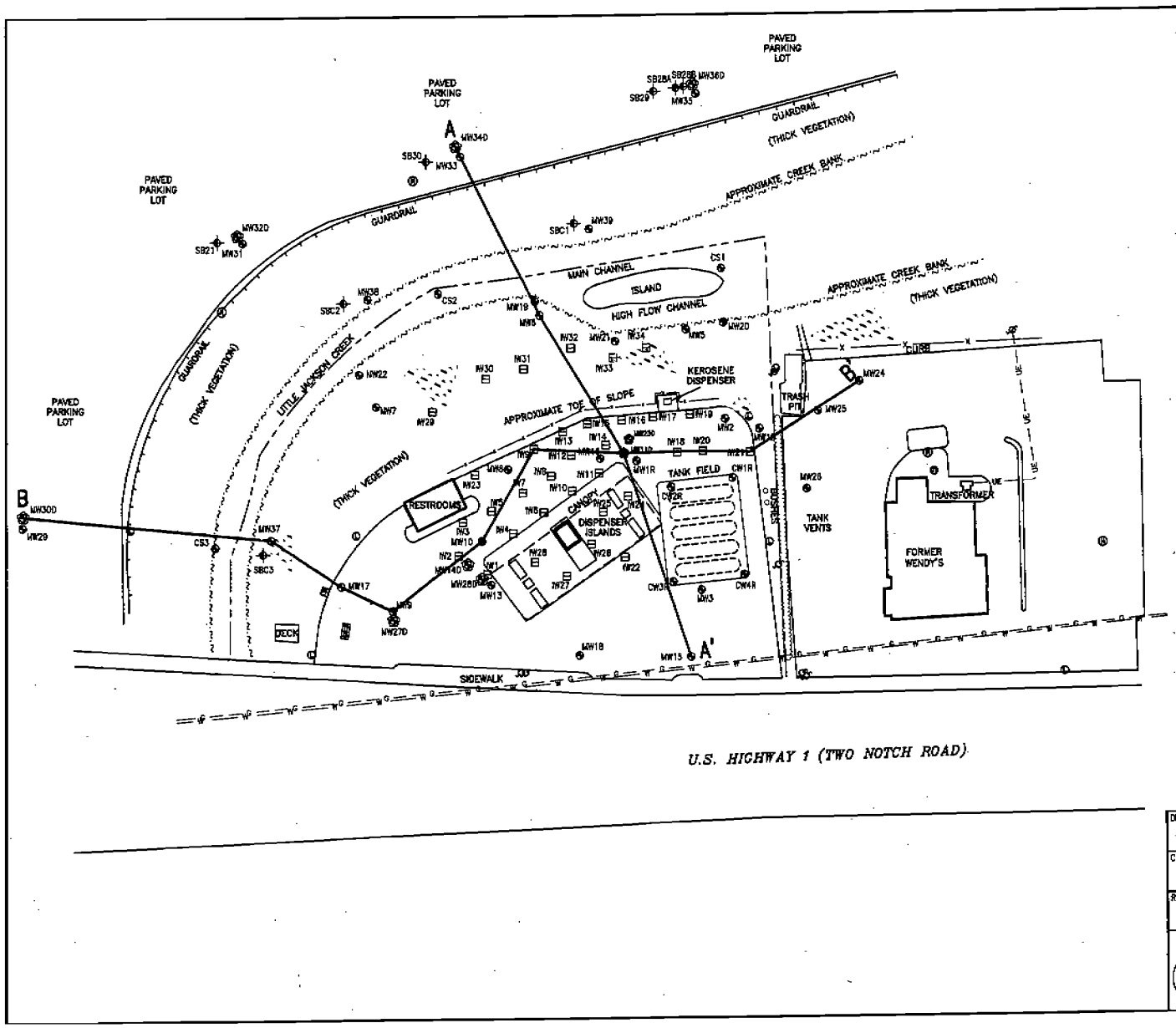
GROUND WATER ELEVATION CONTOUR MAP
(AUGUST 30, 2007)

HESS STATION 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

PROJECT NO.:	DRAWN BY: ICD
REVISED BY:	DATE: 09/21/07
FILE NAME: 40245_0713\GSLAYER_0708.SD	

DELTA

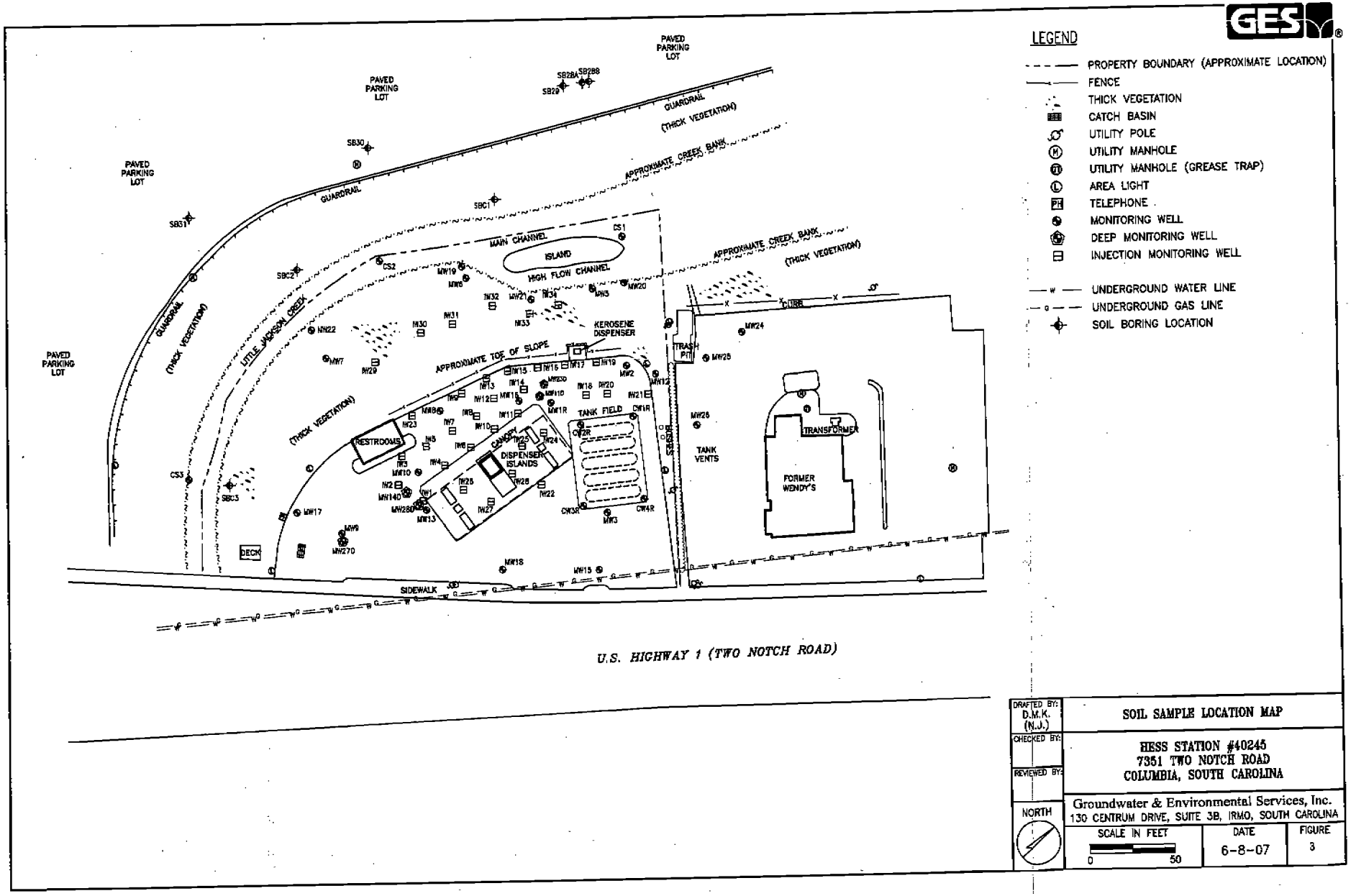

LEGEND
PROPERTY LINE
MONITORING WELL LOCATION
DEEP MONITORING WELL LOCATION
B= BENZENE
T= TOLUENE
E= ETHYLBENZENE
X= TOTAL XYLENES
MTBE= METHYL TERTIARY BUTYL ETHER
N= NAPHTHALENE
ALL CONCENTRATIONS EXPRESSED IN ug/L
BOLD VALUES INDICATE CONCENTRATIONS AT OR ABOVE THE RISK-BASED SCREENING LEVELS
DRY WELL DRY
NS= NOT SAMPLED
FIGURE 3
GROUND WATER AND CREEK CONTAMINANTS OF CONCERN MAP
(AUGUST 30, 2007)
HESS STATION 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA
DELTA
U.S. HIGHWAY 1 (TWO NOTCH ROAD)
FORMER WENDY'S
TRANSFORMER
TRASH PIT
TANK VENTS
CANOPY
DISPENSER ISLAND (TYP.)
KEROSENE DISPENSER
SIDEWALK
DECK
PAVED PARKING LOT
MAIN CHANNEL
HIGH FLOW CHANNEL
ISLAND
CURB
GUARDRAIL
LITTLE JACKSON CREEK
APPROXIMATE CREEK BANK
(THICK VEGETATION)
N



LEGEND

- PROPERTY BOUNDARY (APPROXIMATE LOCATION)
- FENCE
- THICK VEGETATION
- CATCH BASIN
- UTILITY POLE
- UTILITY MANHOLE
- UTILITY MANHOLE (GREASE TRAP)
- AREA LIGHT
- TELEPHONE
- MONITORING WELL
- DEEP MONITORING WELL
- INJECTION MONITORING WELL
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- SOIL BORING LOCATION

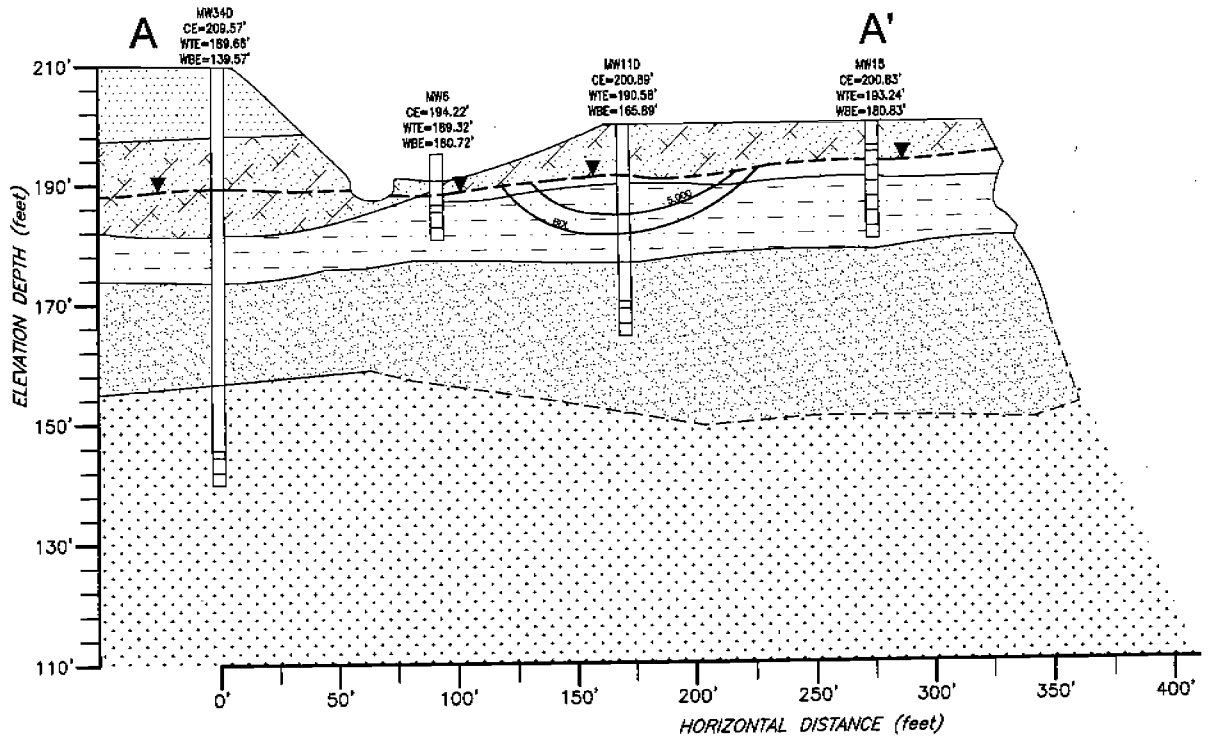
DRAFTED BY: D.M.K. (N.J.)	LINES OF CROSS-SECTION
CHECKED BY:	HESS STATION #40245 7351 TWO NOTCH ROAD COLUMBIA, SOUTH CAROLINA
REVIEWED BY:	Groundwater & Environmental Services, Inc. 130 CENTRUM DRIVE, SUITE 3B, IRMO, SOUTH CAROLINA
NORTH	SCALE IN FEET: 0 50 / DATE: 5-29-07 / FIGURE: 4



LEGEND

- PROPERTY BOUNDARY (APPROXIMATE LOCATION)
- FENCE
- THICK VEGETATION
- CATCH BASIN
- UTILITY POLE
- UTILITY MANHOLE
- UTILITY MANHOLE (GREASE TRAP)
- AREA LIGHT
- TELEPHONE
- MONITORING WELL
- DEEP MONITORING WELL
- INJECTION MONITORING WELL
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- SOIL BORING LOCATION

DRAFTED BY: D.M.K. (N.J.)	SOIL SAMPLE LOCATION MAP
CHECKED BY:	HESS STATION #40245 7351 TWO NOTCH ROAD COLUMBIA, SOUTH CAROLINA
REVIEWED BY:	Groundwater & Environmental Services, Inc. 130 CENTRUM DRIVE, SUITE 3B, IRMO, SOUTH CAROLINA
NORTH	SCALE IN FEET: 0 – 50 / DATE: 6-8-07 / FIGURE: 3



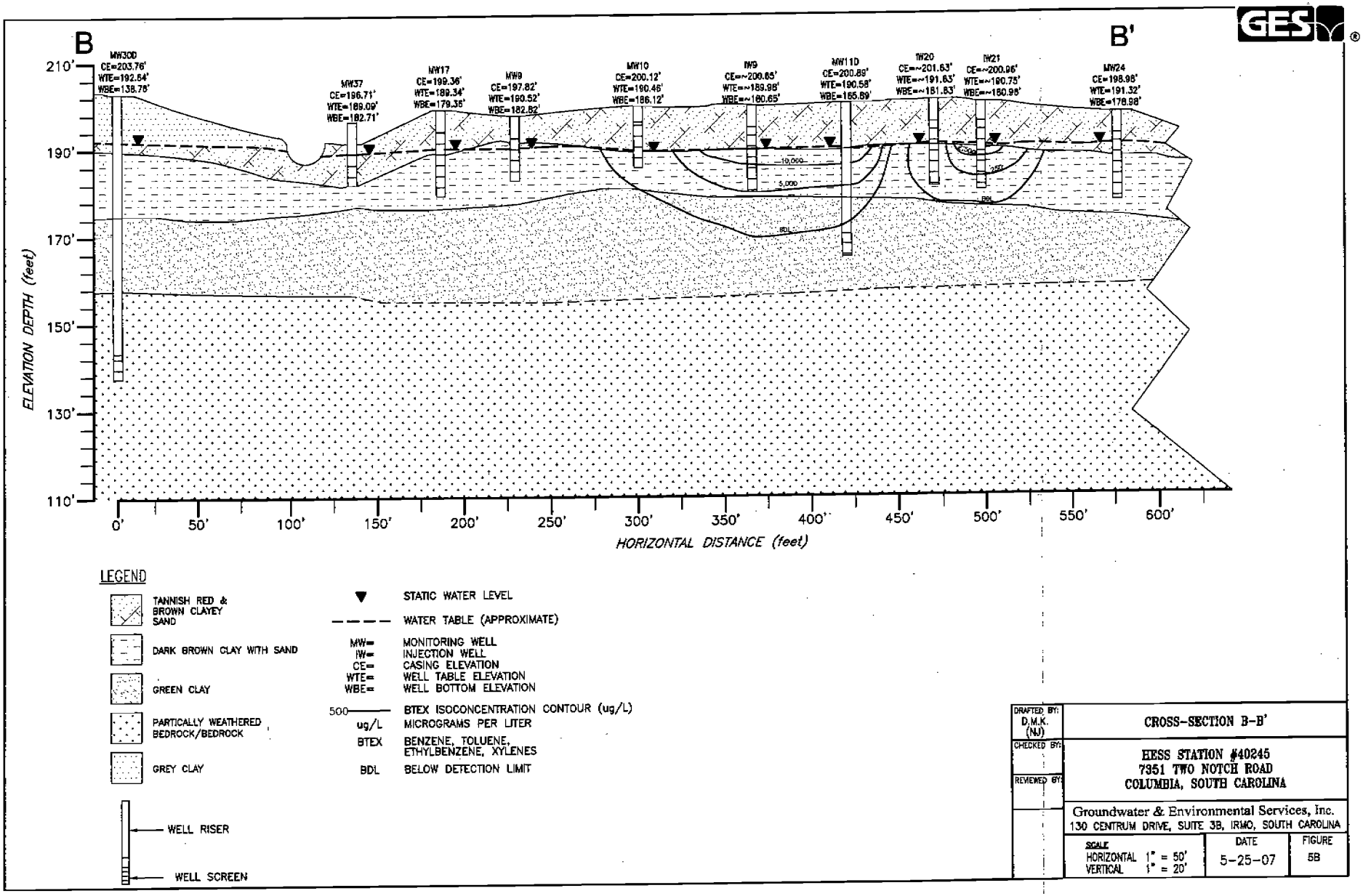
LEGEND

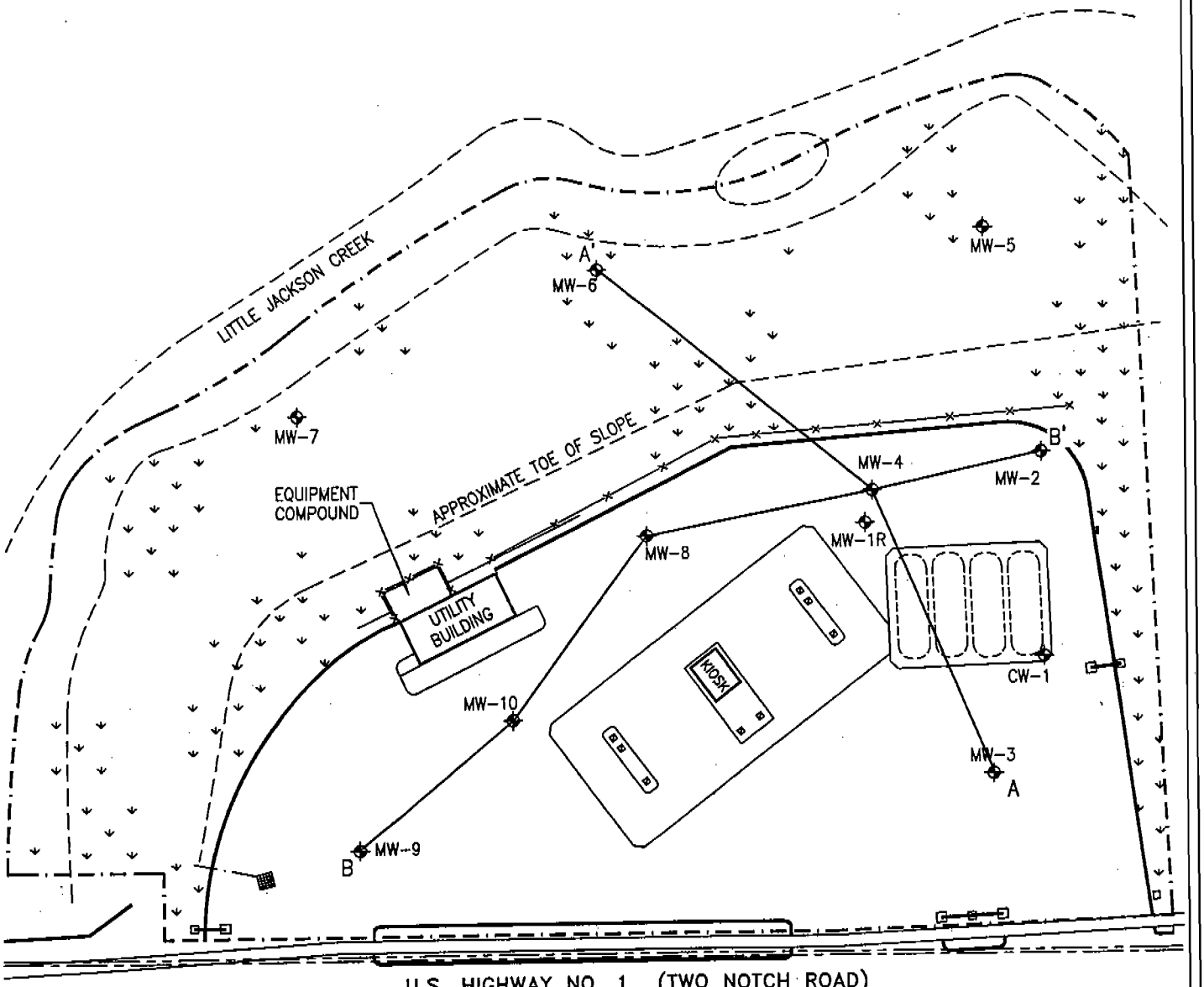
- TANNISH RED & BROWN CLAYEY SAND
- DARK BROWN CLAY WITH SAND
- GREEN CLAY
- PARTICALLY WEATHERED BEDROCK/BEDROCK
- GREY CLAY
- WELL RISER
- WELL SCREEN
- STATIC WATER LEVEL
- WATER TABLE (APPROXIMATE)

MW= MONITORING WELL
IW= INJECTION WELL
CE= CASING ELEVATION
WTE= WELL TABLE ELEVATION
WBE= WELL BOTTOM ELEVATION

500 BTEX ISOCONCENTRATION CONTOUR (ug/L)
ug/L MICROGRAMS PER LITER
BTEX BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
BDL BELOW DETECTION LIMIT

DRAFTED BY: W.A.W. (NJ)	CROSS-SECTION A-A'
CHECKED BY:	HESS STATION #40245 7351 TWO NOTCH ROAD COLUMBIA, SOUTH CAROLINA
REVIEWED BY:	Groundwater & Environmental Services, Inc. 130 CENTRUM DRIVE, SUITE 3B, IRMO, SOUTH CAROLINA
	SCALE: HORIZONTAL 1" = 50', VERTICAL 1" = 20' / DATE: 6-8-07 / FIGURE: 5A


B
B'
MW30D
CE=203.76'
WTE=192.54'
WBE=138.78'
MW37
CE=196.71'
WTE=189.09'
WBE=182.71'
MW17
CE=199.36'
WTE=189.34'
WBE=179.36'
MW9
CE=197.82'
WTE=190.52'
WBE=182.82'
MW10
CE=200.12'
WTE=190.46'
WBE=186.12'
IW9
CE=~200.65'
WTE=~189.98'
WBE=~180.65'
MW11D
CE=200.89'
WTE=190.58'
WBE=165.89'
IW20
CE=~201.63'
WTE=~191.63'
WBE=~181.63'
IW21
CE=~200.96'
WTE=~190.75'
WBE=~180.96'
MW24
CE=198.98'
WTE=191.32'
WBE=176.98'
10,000
5,000
250'
BDL
210'
190'
170'
150'
130'
110'
ELEVATION DEPTH (feet)
0'
50'
100'
150'
200'
250'
300'
350'
400'
450'
500'
550'
600'
HORIZONTAL DISTANCE (feet)
LEGEND
TANNISH RED & BROWN CLAYEY SAND
DARK BROWN CLAY WITH SAND
GREEN CLAY
PARTICALLY WEATHERED BEDROCK/BEDROCK
GREY CLAY
WELL RISER
WELL SCREEN
STATIC WATER LEVEL
WATER TABLE (APPROXIMATE)
MW= MONITORING WELL
IW= INJECTION WELL
CE= CASING ELEVATION
WTE= WELL TABLE ELEVATION
WBE= WELL BOTTOM ELEVATION
500 BTEX ISOCONCENTRATION CONTOUR (ug/L)
ug/L MICROGRAMS PER LITER
BTEX BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
BDL BELOW DETECTION LIMIT
DRAFTED BY: D.M.K. (NJ)
CHECKED BY:
REVIEWED BY:
CROSS-SECTION B-B'
HESS STATION #40245
7951 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA
Groundwater & Environmental Services, Inc.
130 CENTRUM DRIVE, SUITE 3B, IRMO, SOUTH CAROLINA
SCALE
HORIZONTAL 1" = 50'
VERTICAL 1" = 20'
DATE
5-25-07
FIGURE
5B



LEGEND

- WATER LINE
- GAS LINE
- STORM DRAIN
- FENCE
- PROPERTY LINE
- MW-1 MONITORING WELL

SCALE: 0 40' 80'

PREPARED FOR: AMERADA HESS CORPORATION

SITE ADDRESS: STATION No. 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

H_2O ENVIRONMENTAL, INC.
SCIENTISTS & ENGINEERS

NORTH

DRAWN BY: VS/DB

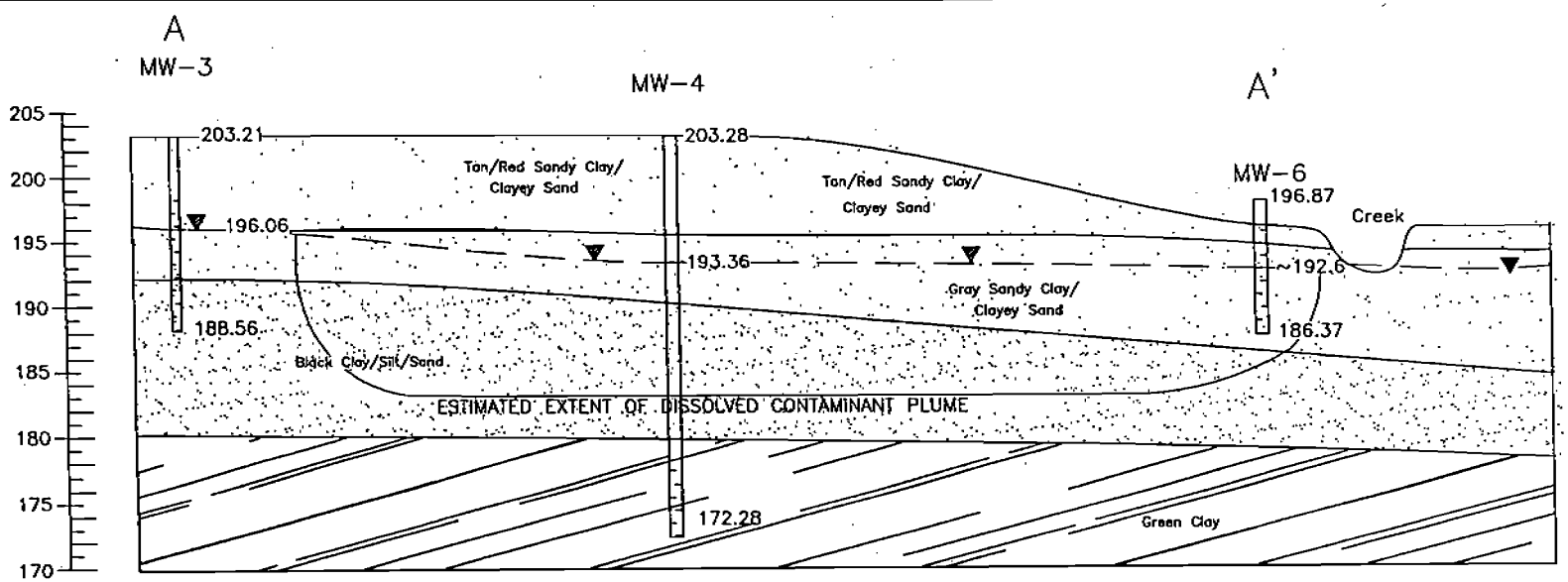
DATE DRAWN: 12/29/96

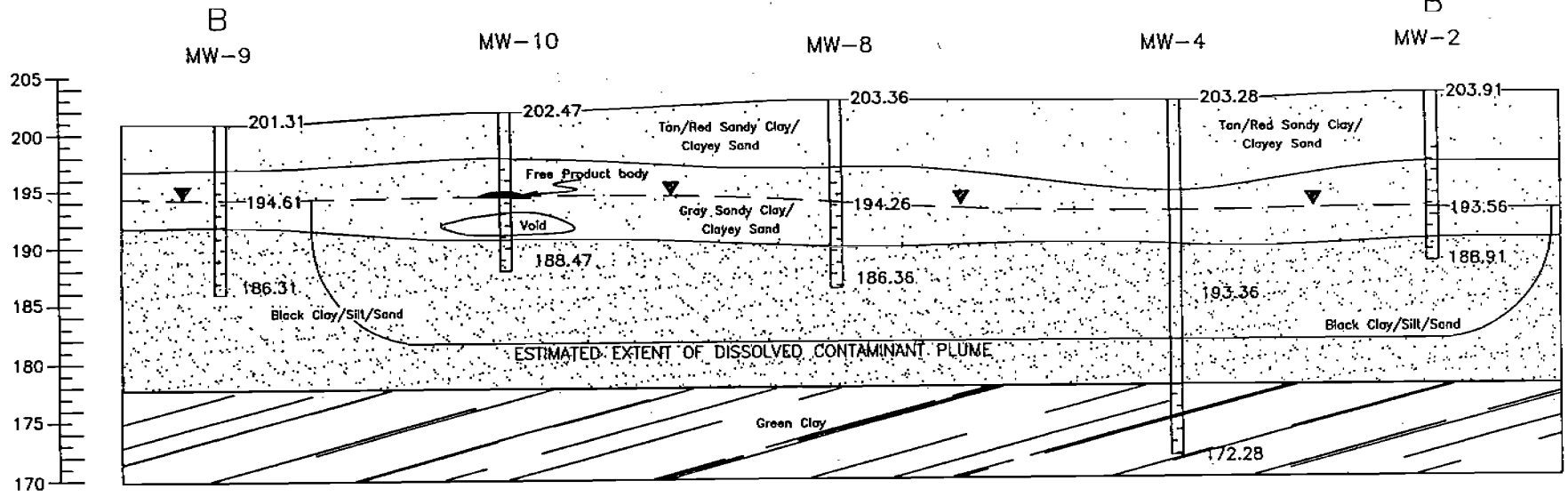
JOB NUMBER: 1713.4011

FIGURE NUMBER: 4

FIGURE TITLE: LINES OF CROSS SECTION MAP

SCDHEC
IFB-32927-1/10/08-EMW
Page: 33





SCDHEC
IFB-32927-1/10/08-EMW
Page: 34

H2O ENVIRONMENTAL, INC.
SCIENTISTS & ENGINEERS

APPROXIMATE SCALE:
HORIZONTAL 1"=30'
VERTICAL 1"=15'

PREPARED FOR:
AMERADA HESS CORPORATION

SITE ADDRESS:
7351 Two Notch Road
Columbia, SC
Station # 40245

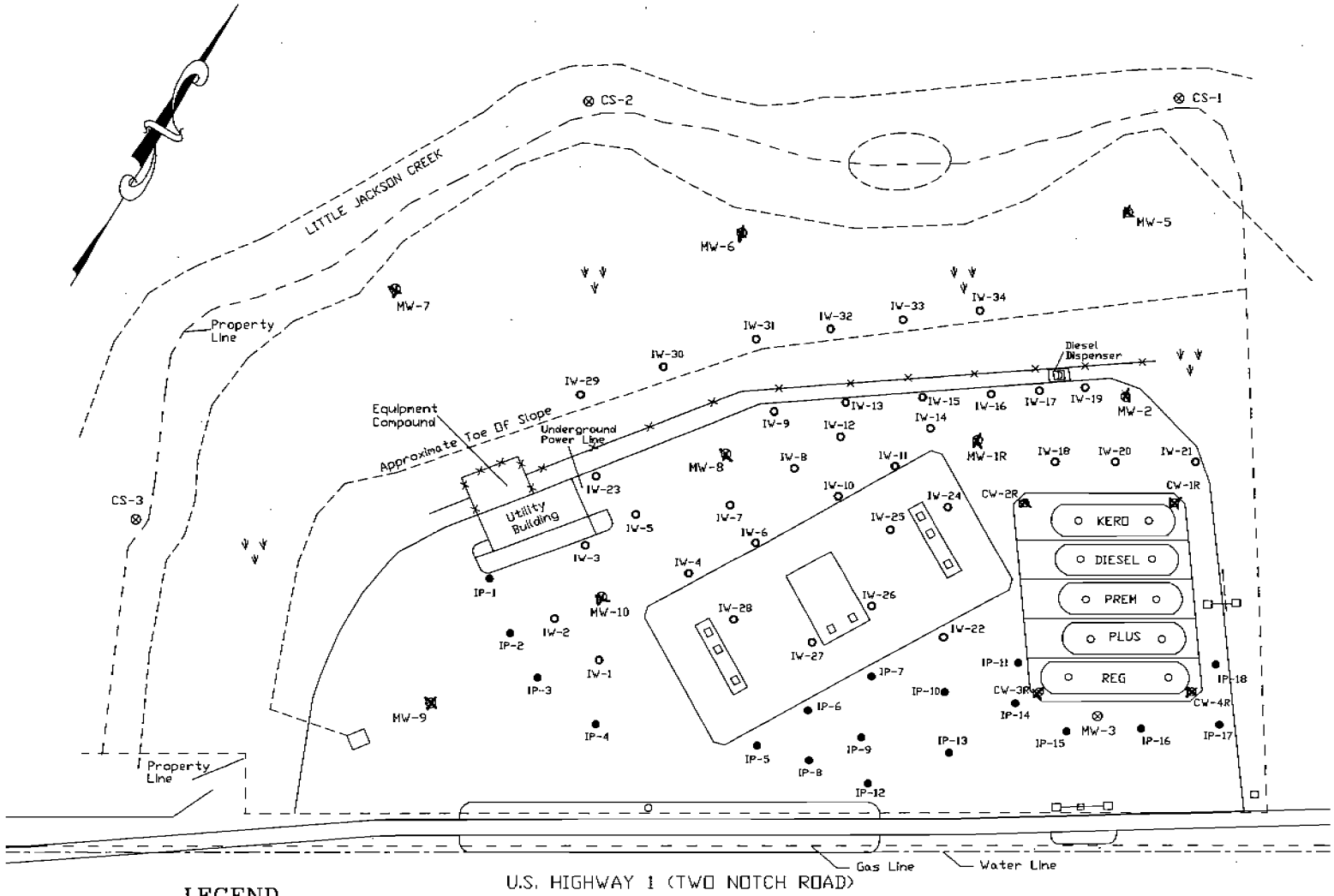
JOB NUMBER: 1713.4011

DATE DRAWN: 1/15/97

DRAWN BY: d.burritt

FIGURE NUMBER: 5

CROSS SECTION MAP



LEGEND

- Monitor Well
- Injection Well
- Injection Point
- Grass
- Water Line
- Gas Line
- Fence
- Property Line

GRAPHIC SCALE

40 0 40 40

1 inch = 40 ft.

SCDHEC
IFB-32927-1/10/08-EMW
Page: 35

NESCO
Ingenuity At Work

NESCO, Inc.
521 CLEMSON ROAD
COLUMBIA, SOUTH CAROLINA 29229, USA
PHONE: 803.699.1976 FAX: 803.699.9863

FIGURE 2

SITE MAP DISPLAYING MONITORING WELLS, INJECTION WELLS, AND INJECTION POINTS

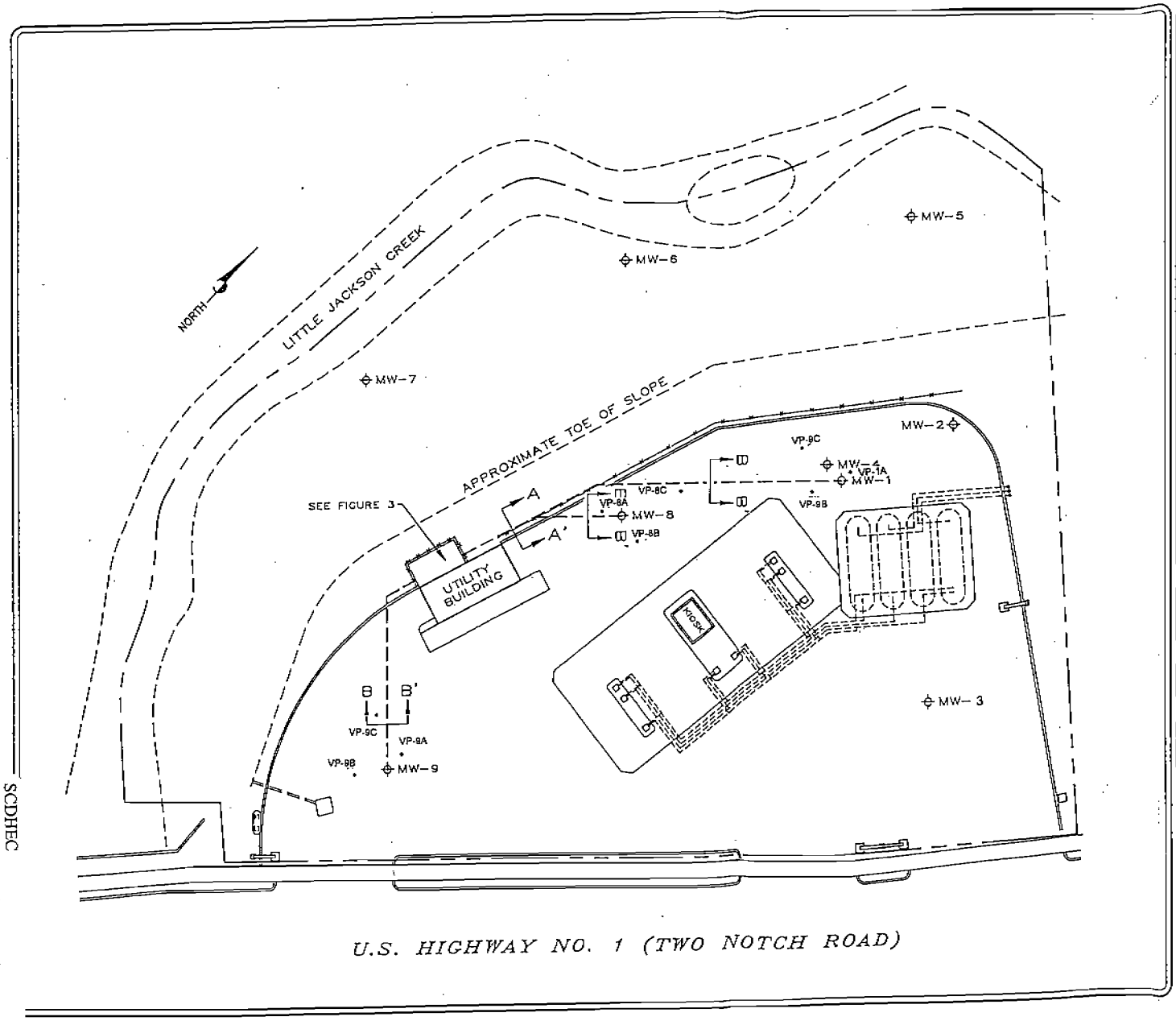
AMERADA HESS CORPORATION
HESS # 40245
COLUMBIA, SC

RICHLAND COUNTY, SC
GWPD SITE #07631

REFERENCES

NOTES

REPORT: 21-383E
FILE: Fig2.DWG



U.S. HIGHWAY NO. 1 (TWO NOTCH ROAD)

LEGEND

- MONITOR WELL
- PROPERTY LINE
- B B' TRENCH CROSS SECTION (SEE DETAIL ON FIGURE 5)
- VP - Vapor Extraction Monitoring Point

H_2O ENVIRONMENTAL, INC.
ASSESSMENT AND REMEDIATION SPECIALISTS

PREPARED FOR:
AMERADA HESS CORPORATION

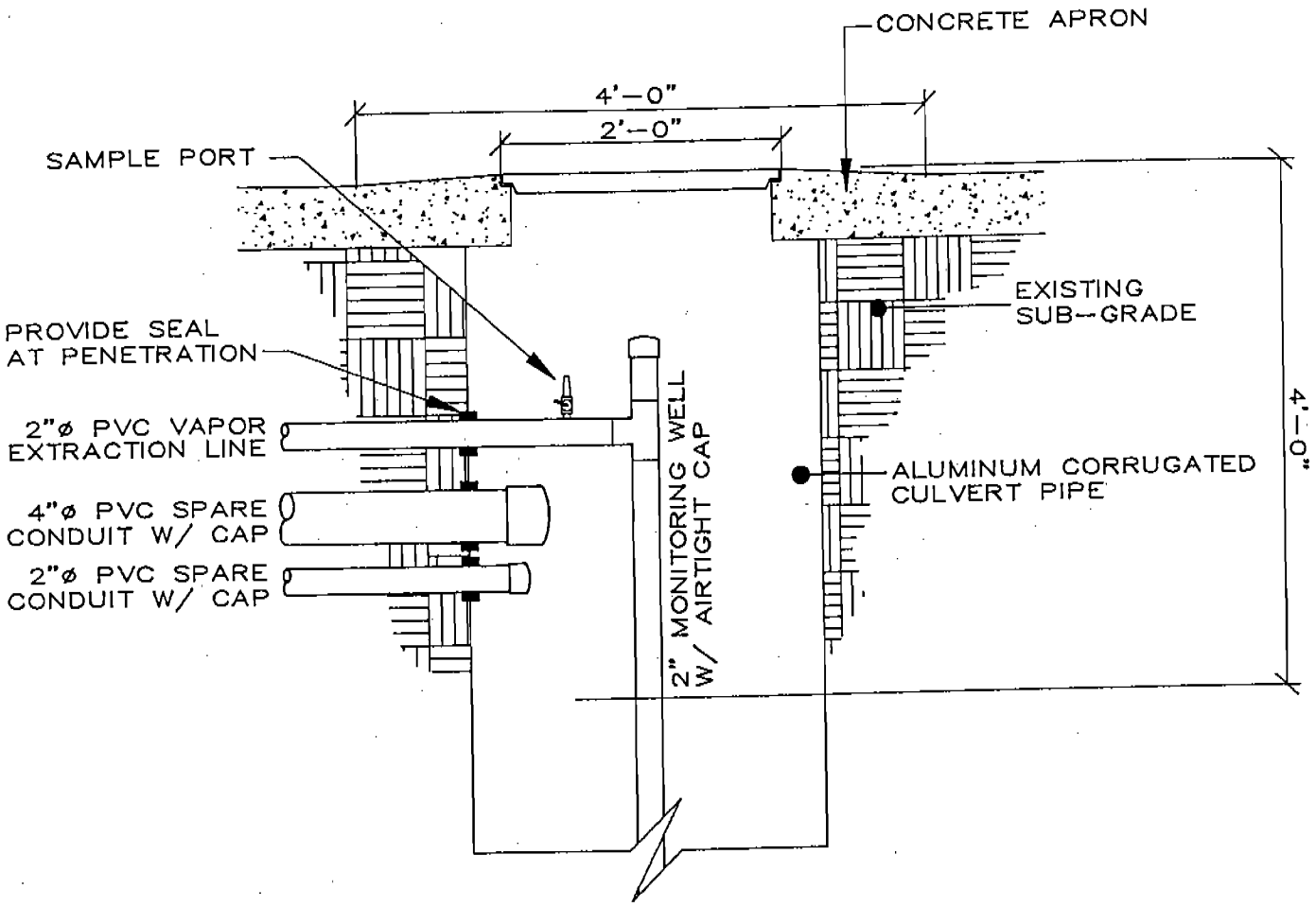
SITE ADDRESS:
STATION #40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

FIGURE TITLE:
SITE PLAN

SCALE:
0' 15' 30' 60'

DRAWN BY:	JOB NUMBER:	FIGURE NO.:
C.J. LANE	1713.4011	2

SCDHEC
IFB-32927-I/10/08-EMW
Page: 36



NOTES:
1. SQUARE, RAINTIGHT MANHOLE
2. PIPING SUMP OR CORRUGATED CULVERT PIPE TO PROVIDE 4' ACCESS OPENING BELOW GRADE

SCALE: NOT TO SCALE

H2 ENVIRONMENTAL, INC.
ASSESSMENT & REMEDIATION SPECIALISTS

PREPARED FOR: AMERADA HESS CORPORATION

SITE ADDRESS: STATION No. 40250
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

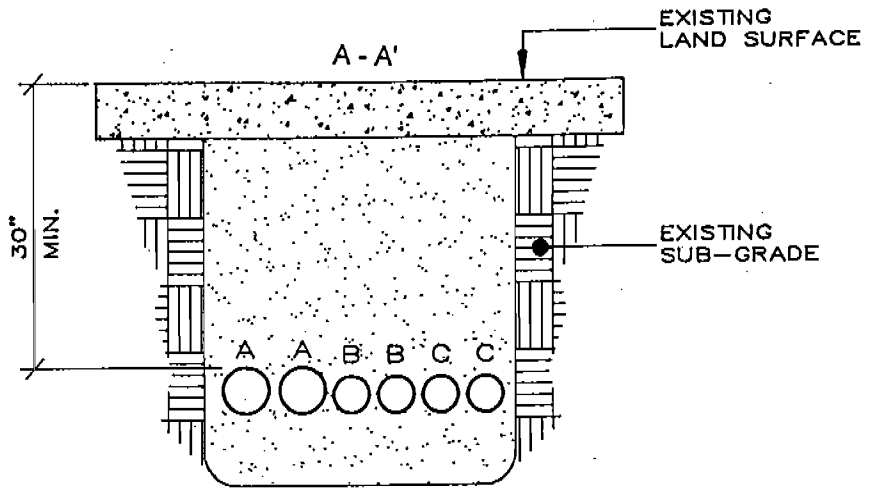
JOB NO.: 1713.4011

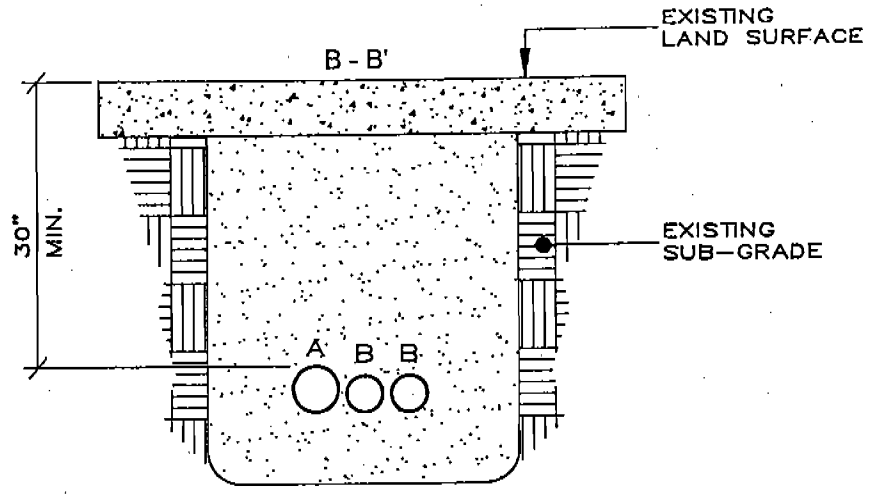
DRAWN BY: C. LANE

DATE DRAWN: 4/6/94

FIGURE NUMBER: 4

FIGURE TITLE: MANHOLE DETAIL





A = 4"ø SCHED 40 PVC PIPE
(SPARE CONDUIT)

B = 2"ø SCHED 40 PVC PIPE
(VAPOR EXTRACTION)

C = 2"ø SCHED 40 PVC PIPE
(SPARE CONDUIT)

SCALE: NOT TO SCALE

H2 ENVIRONMENTAL, INC.
ASSESSMENT & REMEDIATION SPECIALISTS

PREPARED FOR:
AMERADA HESS CORPORATION

SITE ADDRESS:
STATION No. 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

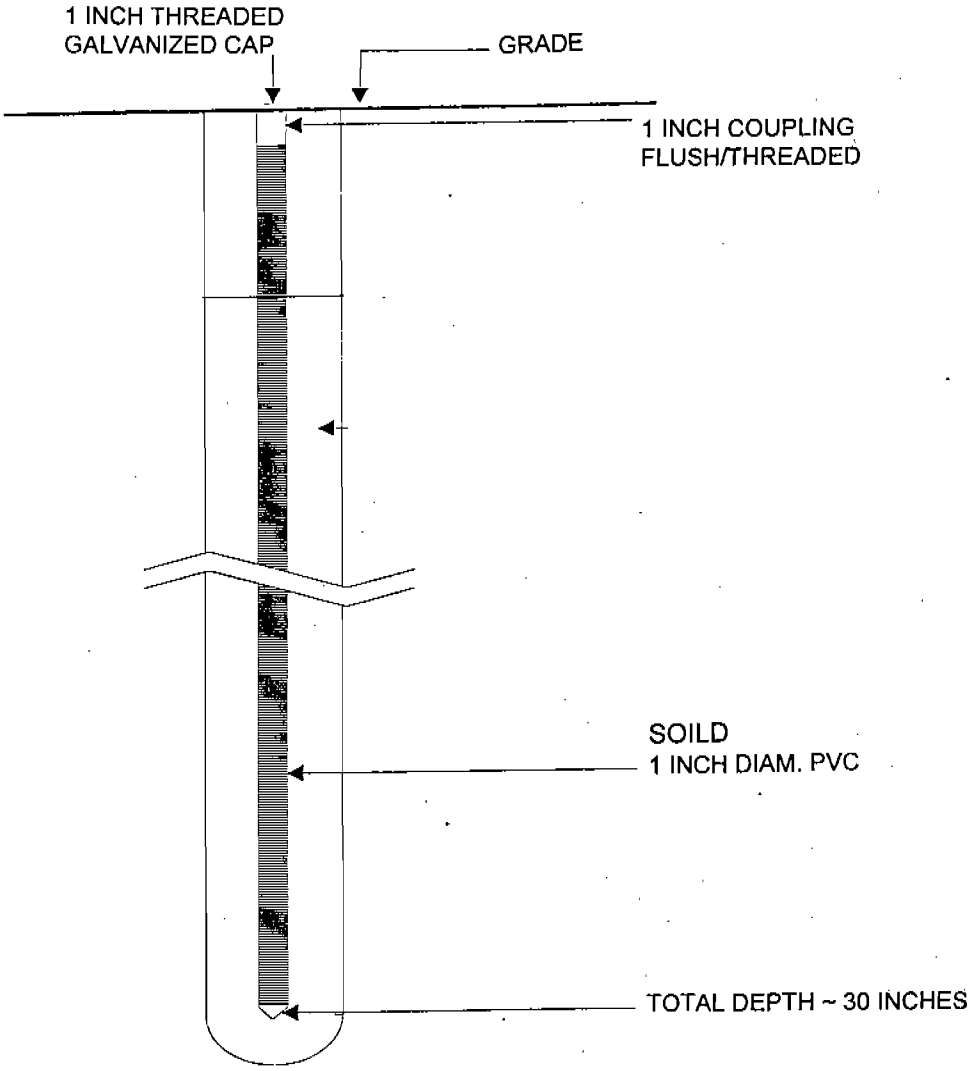
JOB NO.: 1713.4011

DRAWN BY: C. LANE

DATE DRAWN: 4/7/94

FIGURE NUMBER: 5

FIGURE TITLE: TRENCH DETAIL



H2O ENVIRONMENTAL, INC.
SCIENTISTS & ENGINEERS

SITE
HESS STATION NO. 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

TITLE
VAPOR EXTRACTION MONITORING POINT - CONSTRUCTION DETAIL

FIG
10

TABLE 3
SUMMARY OF SOIL QUALITY

Amerada Hess Station No. 40245
7351 Two Notch Road, Columbia, South Carolina

Well I.D.	Date	Depth (ft.)	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	MTBE	Naphthalene
MW-1R	9/24/96	4'-6'	.031	.072	.044	.210	.357	.177	.013
MW-10	10/17/96	4'-6'	<.005	.007	.005	.024	.031	NA	<.005
RBSL's	-	-	0.013	1.88	9.60	35.50	-	-	0.110

Well I.D.	Date	Depth (ft.)	TPH 3550	TPH 9071	TOC
MW-1R	9/24/96	4'-6'	<10.0	351	NS
MW-10	10/17/96	4'-6'	<10.0	110	NS
SB-TOC	9/24/96	5'-7'	NS	NS	476

Notes:
All concentrations are mg/kg
NS - Not sampled for.
ND - None Detected
RBSL's are based on Table 6 (Clay Rich Soil, 5-10 ft to ground water) of the SCDHEC guidence RBCA for Petroluem Releases (1995)

Executive Summary

Amerada Hess Station No. 40245
7351 Two Notch Road
Columbia, South Carolina
GWPD # 07631

From April 22-29, 1996, H_20 Environmental Inc. (H_20) personnel supervised the removal of the steel underground storage tanks (UST) and product distribution lines and the installation of fiberglass UST's and double walled fiberglass piping. Progressive Builders Corporation performed the UST and line replacement. All pertinent information can be found in this UST Assessment Report (USTAR) and the appendices.

The old UST's and piping were removed and soil samples were collected from appropriate locations and depths, field screened, and sent to a certified laboratory for analysis. The samples SS-1 through SS-25 are representative of the soil from the excavations (See Figure 2 for sample locations and the table following page 2 - 5 for the analytical results).

Approximately 1950.82 cubic yards of excavated soils were transported and thermally treated, and approximately 400 cubic yards of excavated soil were stockpiled on site, analyzed and then shipped to Chambers Landfill. The stockpile sample is representative of the soil that was removed and sent to Chambers Landfill (See Appendix B for disposal manifests).

During the excavation it was necessary to dewater the tank pit for proper installation of new UST's. The groundwater which was dewatered was stored in a roll-off, pumped into an air stripper and discharged to the flood plain of Little Jackson Creek. Samples were collected from the roll-off (Influent), from the discharge point just after pumping began (Start-up) and from the discharge point just prior to shut-down (Effluent). See table following page 2-5 and Appendix C for analytical results.

Free product was noted floating in the UST excavation and trenches A, B, C and D (see Figure 2). Approximately 1800 gallons of product/water were removed via a pump truck, operated by the Crandall Corporation. See Appendix B for the disposal manifests.

TABLE 1

SUMMARY OF SOIL QUALITY

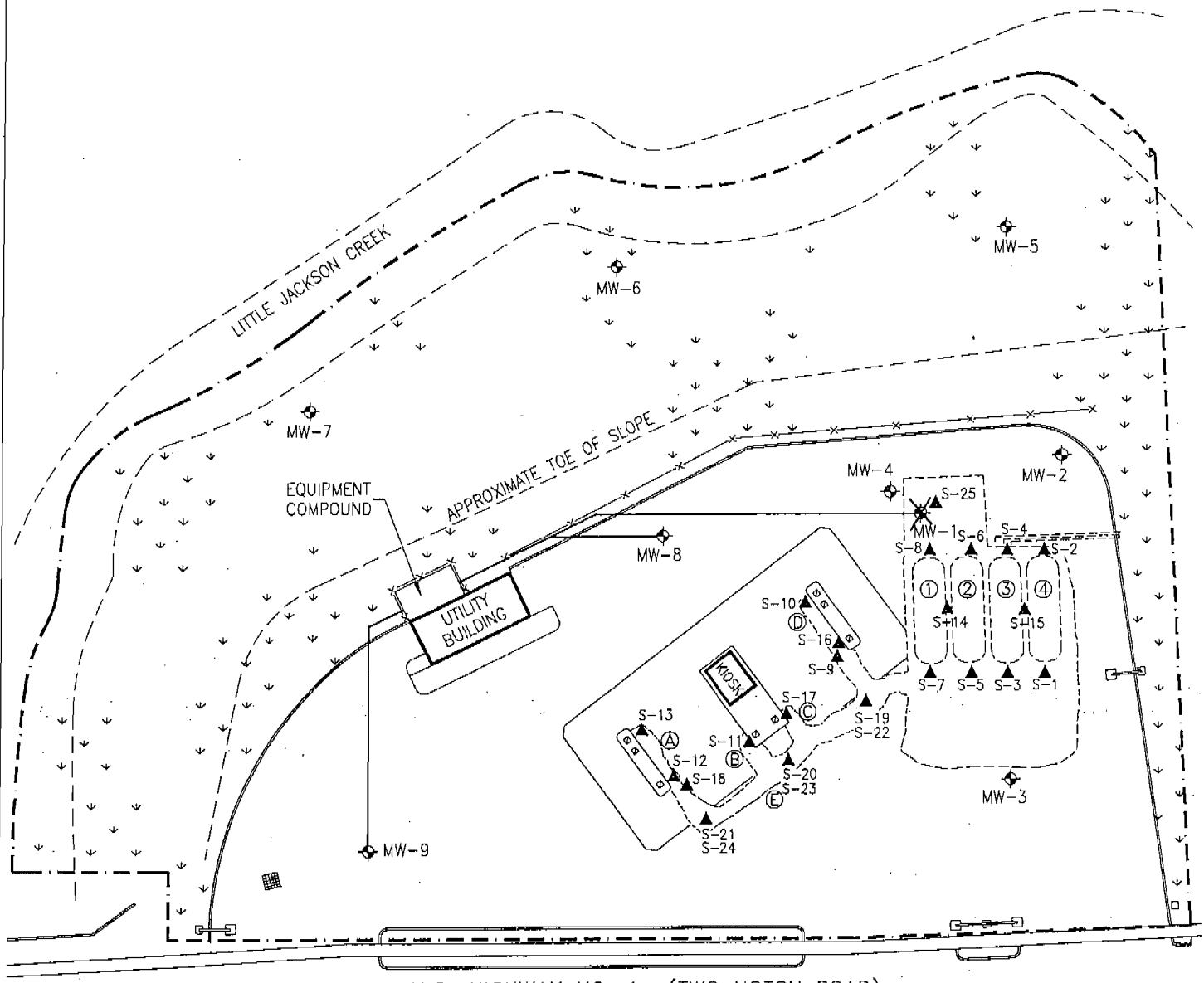
Amerada Hess Station No. 40245
3751 Two Notch Road
Columbia, South Carolina
GWPD # 07631

Sample ID	Date	Benzene	Toluene	Ethyl benzene	Xylenes	Total BETX	MTBE	Naphth	Gasoline*	Diesel*	Acenaphthyl-ene	Acenaphthene	Flourine	Phenanthrene	Anthracene	Flouranthene	Pyrene
S-1	4/22/96	17,200	216,000	128,000	609,000	970,200	4,160	2.8	1,490	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-2	4/22/96	25,500	579,000	296,000	1,410,000	2,310,500	15,000	10.5	2,150	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-3	4/23/96	8,270	80,800	7,830	242,000	338,900	34,500	2.43	14,100	<10.0	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
S-4	4/23/96	<5.0	16.2	6.14	24.5	46.84	<5.0	<0.080	4.08	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-5	4/23/96	<1000	1,960	2,860	24,000	28,820	<1000	1.7	1,040	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-6	4/23/96	2.60	23.0	4.75	22.0	52.4	17.2	<0.080	<2.0	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-7	4/23/96	<1000	3,840	2,540	35,100	41,480	<1000	1.2	1,270	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-8	4/23/96	106	146	153	579	984	763	0.30	15.5	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-9	4/23/96	2,240	58,200	5,110	128,000	193,550	30,500	1.20	9,580	280	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-10	4/23/96	<1000	43,000	6,160	181,000	230,160	<1000	1.71	9,400	2980	0.9	0.2	3.7	3.2	<0.080	0.2	0.2
S-11	4/23/96	<20000	298,000	85,200	20,000	403,200	<20000	8.07	30,300	<10.0	0.2	0.3	1.0	0.7	0.4	0.2	0.2
S-12	4/23/96	<10000	212,000	48,000	422,000	682,000	<10000	4.2	28,700	<10.0	0.13	0.13	0.4	0.5	<0.080	0.1	<0.080
S-13	4/23/96	<500	1,270	1,010	6,140	8,420	<500	1.9	181	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-14	4/23/96	1,960	<500	2,720	888	5,568	<500	0.8	6.34	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-15	4/23/96	3.88	62.1	10.8	142	218.78	152	<0.080	8.65	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-16	4/24/96	24.0	10.3	<5.0	29.3	63.6	12.6	<0.080	<2.0	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-17	4/24/96	<5.0	<5.0	<5.0	<5.0	BDL	156	<0.80	<2.0	<10.0	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
S-18	4/24/96	<5.0	<5.0	<5.0	<5.0	BDL	61.2	<0.080	<2.0	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-19	4/29/96	18,700	1,220,000	423,000	2,360,000	4,021,700	24,700	45.0	10,400	<50.0	<0.080	<0.080	1.01	2.74	<0.080	<0.080	2.64
S-20	4/29/96	23,300	1,200,000	311,000	1,670,000	3,204,300	50,600	21.7	7,210	<100	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
S-21	4/29/96	255	8,950	5,770	38,800	53,775	<500	2.97	302	<20.0	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
S-22	4/29/96	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<0.080	<0.2	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-23	4/29/96	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<0.080	<0.2	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
S-24	4/29/96	845	13,300	6,260	37,300	57,705	<500	4.60	1,150	<100	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
S-25	4/29/96	9,400	4,350	42,900	169,000	225,650	<5000	0.296	848	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Stockpile	4/25/96	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<0.080	<2.0	<10.0	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080

Notes:

*All units in ug/kg except Gasoline and Diesel which are in mg/kg.

Sample depths and OVA readings (PPMv) are listed on Section IX.B. on Closure Form.



LEGEND

- Ⓐ TRENCH
- ① UST
- EXCAVATION AREA
- ▲ SOIL SAMPLE
- FENCE
- PROPERTY LINE
- ⊕ MONITORING WELL
- X WELL REMOVED

SCALE: 0 40' 80'

PREPARED FOR: AMERADA HESS CORPORATION

SITE ADDRESS: STATION No. 40245
7351 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

NORTH

DRAWN BY: V. SNYDER

DATE DRAWN: 7/3/96

JOB NUMBER: 1713.4011

FIGURE NUMBER: 3

H_2O ENVIRONMENTAL, INC.
SCIENTISTS & ENGINEERS

FIGURE TITLE: SOIL SAMPLE LOCATION MAP

TABLE 2

AFVR Gauging Data
December 7, 2006

Hess Station # 40245
7351Two Notch Road
Columbia, South Carolina
Site ID #07631

	EFR Wells	Monitoring Wells		
Time	IW-9	MW-8	IW-8	IW-13
Pre AFVR Free Product Level	10.82	-	-	-
Pre AFVR Static Water Level	10.85	9.45	10.61	10.76
7:30	well under vaccuum	9.45	10.85	10.76
8:00		9.50	10.85	10.96
8:30		9.50	10.85	10.96
9:00		9.50	10.85	10.96
9:30		9.50	10.85	10.96
10:00		9.55	10.85	10.96
10:30		9.55	10.85	10.96
11:00		9.60	10.85	10.96
11:30		9.60	10.85	10.96
12:00		9.60	10.95	10.96
12:30		9.60	10.95	10.96
13:00		9.60	10.95	10.96
13:30		9.60	10.95	10.96
14:00		9.60	10.95	10.96
14:30		9.62	11.10	10.96
15:00		9.62	11.10	10.96
15:30	11.30	9.62	11.10	10.96
Post AFVR Free Product Level	-	-	-	-
Post AFVR Static Water Level	11.30	9.62	11.10	10.96

Note: All measurements are in feet.

TABLE 3

AFVR Data
December 7, 2006

Hess Station # 40245
7351 Two Notch Road
Columbia, South Carolina
Site ID #07631

Well ID	Time	Out Flow (f/m)	OVA (ppm)	Temperature °F	Vacuum ("Hg)	Product Recovery
IW-9	7:30	3817	740	53.2	20	
	8:00	3862	800	100.5	20	
	8:30	3778	830	105	20	
	9:00	3759	655	118.3	20	
	9:30	3129	625	132.2	10	
	10:00	3029	540	145.9	10	
	10:30	3129	510	145.2	10	
	11:00	3207	440	152.5	10	
	11:30	3120	317	158.6	10	
	12:00	3011	350	160.7	10	
	12:30	3129	400	156.5	10	
	13:00	3011	320	159.1	10	
	13:30	3207	345	160.2	10	
	14:00	3266	412	162.3	20	
	14:30	3030	450	160	20	
	15:00	3011	480	161.6	20	
	15:30	3011	445	161.9	20	2 gallons

Notes:
f/m - feet per minute
ppm - parts per million
"Hg -inches of mercury
gal- gallons

TABLE 4

Summary of OVA Soil Screening Results

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Soil Boring	Date	Sampling Interval (feet BLS)	OVA (ppm)
SB-28	7-Dec-06	0-4	1
	7-Dec-06	4-8	15
	7-Dec-06	8-12	4
	7-Dec-06	12-16	98
	7-Dec-06	16-19 (WT)	51
SB-29	7-Dec-06	0-4	1
	7-Dec-06	4-8	10
	7-Dec-06	8-12	8
	7-Dec-06	12-16	93
	7-Dec-06	16-19 (WT)	55
SB-30	7-Dec-06	0-4	0
	7-Dec-06	4-8	1
	7-Dec-06	8-12	1
	7-Dec-06	12-16	26
	7-Dec-06	16-19 (WT)	0
SB-31	7-Dec-06	0-4	0
	7-Dec-06	4-8	0
	7-Dec-06	8-12	0
	7-Dec-06	12-16	6
	7-Dec-06	16-19 (WT)	9
SBC-1	7-Dec-06	0-4 (WT)	0
SBC-2	7-Dec-06	0-4 (WT)	0
SBC-2a	7-Dec-06	0-4 (WT)	0
SBC-2b	7-Dec-06	0-4 (WT)	0
SBC-3	7-Dec-06	0-4	0
	7-Dec-06	4-7 (WT)	0
SBC-3a	7-Dec-06	0-4	0
SBC-3b	7-Dec-06	0-4	0

Notes:
All units are parts per million by volume (ppm).
All analysis have been corrected for Methane using a carbon filter.
Depth is below land surface (BLS).
WT - screened at water table

TABLE 5

Summary of Groundwater Screening Analytical Results

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	MTBE	Naphthalene
SB-28B	7-Dec-06	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SB-29	7-Dec-06	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SB-30	7-Dec-06	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SBC-1	7-Dec-06	**23**	BDL	5.7	BDL	28.7	7.5	BDL
SBC-2	7-Dec-06	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SBC-3	7-Dec-06	**9.9**	BDL	BDL	BDL	9.9	**45**	BDL
RBSLs	-	***5***	***1,000***	***700***	***10,000***	-	***40***	***10***

Notes:
All units in ug/l.
Total BTEX - sum of detected Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 8260.
MTBE - Methyl-Tert-Butyl-Ether
RBSLs - Risked Based Screening Levels
BDL - Below Detection Limit
NS - Not sampled
- = No data
Bold items indicate levels that exceeded RBSLs.

TABLE 6

Monitoring Well & Injection Well Construction Details

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Date Installed	Well Diameter (inches)	Total Depth (feet)	Screened Interval (feet)
MW-1	22-Dec-89	2"	16'	6-16'
MW-1R	24-Sep-96	2"	15'	5-15'
MW-2	4-Sep-90	4"	15'	5-15'
MW-3	4-Sep-90	4"	15'	5-15'
MW-4	4-Sep-90	4"	31'	26-31'
MW-5	14-Mar-91	2"	10'	1-10'
MW-6	14-Mar-91	2"	10'	2-10'
MW-7	14-Mar-91	2"	10'	2-10'
MW-8	20-Mar-91	4"	17'	7-17'
MW-9	19-Mar-91	4"	15'	5-15'
MW-10	17-Oct-96	2"	14'	4-14'
MW-11D	14-Apr-04	2"	35'	30-35'
MW-12	14-Apr-04	2"	13'	3-13'
MW-13	14-Apr-04	2"	15'	5-15'
MW-14D	14-Apr-04	2"	25'	20-25'
MW-15	14-Apr-04	2"	20'	5-20'
MW-16	14-Apr-04	2"	18'	5-18'
MW-17	15-May-06	2"	20'	5-20'
MW-18	15-May-06	2"	20'	5-20'
MW-19	15-May-06	2"	10'	2-10'
MW-20	15-May-06	2"	10'	2-10'
MW-21	15-May-06	2"	10'	2-10'
MW-22	15-May-06	2"	10'	2-10'
MW-23D	19-May-06	2"	61'	56-61'
MW-24	17-May-06	2"	20'	5-20'
MW-25	18-May-06	2"	20'	5-20'
MW-26	18-May-06	2"	20'	5-20'
MW-27D	19-May-06	2"	38'	35-38'
MW-28D	22-May-06	2"	45'	40-45'
MW-29	21-Feb-07	2"	38'	13-38'
MW-30D	26-Feb-07	2"	65'	60-65'
MW-31	20-Feb-07	2"	48'	18-48'
MW-32D	26-Feb-07	2"	65'	60-65'
MW-33	20-Feb-07	2"	35'	10-35'
MW-34D	22-Feb-07	2"	69'	64-70'
MW-35	21-Feb-07	2"	35'	15-35'
MW-36D	23-Feb-07	2"	65'	60-65'
MW-37	24-Feb-07	2"	14'	6-14'
MW-38	24-Feb-07	2"	12'	6-12'

TABLE 6

Monitoring Well & Injection Well Construction Details

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Date Installed	Well Diameter (inches)	Total Depth (feet)	Screened Interval (feet)
MW-39	24-Feb-07	2"	14'	6-14'
IW-1	25-Jan-99	2"	20'	5-20'
IW-2	25-Jan-99	2"	20'	5-20'
IW-3	25-Jan-99	2"	20'	5-20'
IW-4	25-Jan-99	2"	20'	5-20'
IW-5	25-Jan-99	2"	20'	5-20'
IW-6	25-Jan-99	2"	20'	5-20'
IW-7	25-Jan-99	2"	20'	5-20'
IW-8	25-Jan-99	2"	20'	5-20'
IW-9	26-Jan-99	2"	20'	5-20'
IW-10	26-Jan-99	2"	20'	5-20'
IW-11	26-Jan-99	2"	20'	5-20'
IW-12	26-Jan-99	2"	20'	5-20'
IW-13	26-Jan-99	2"	20'	5-20'
IW-14	26-Jan-99	2"	20'	5-20'
IW-15	26-Jan-99	2"	20'	5-20'
IW-16	26-Jan-99	2"	20'	5-20'
IW-17	26-Jan-99	2"	20'	5-20'
IW-18	27-Jan-99	2"	20'	5-20'
IW-19	27-Jan-99	2"	20'	5-20'
IW-20	27-Jan-99	2"	20'	5-20'
IW-21	27-Jan-99	2"	20'	5-20'
IW-22	27-Jan-99	2"	20'	5-20'
IW-23	27-Jan-99	2"	20'	5-20'
IW-24	28-Jan-99	2"	20'	5-20'
IW-25	28-Jan-99	2"	20'	5-20'
IW-26	29-Jan-99	2"	20'	5-20'
IW-27	29-Jan-99	2"	20'	5-20'
IW-28	29-Jan-99	2"	20'	5-20'
IW-29	9-Feb-99	2"	9'	4-9'
IW-30	10-Feb-99	2"	9'	4-9'
IW-31	11-Feb-99	2"	9'	4-9'
IW-32	12-Feb-99	2"	9'	4-9'
IW-33	13-Feb-99	2"	9'	4-9'
IW-34	14-Feb-99	2"	9'	4-9'

TABLE 7

Summary of Soil Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Sample ID	Date Sampled	Sample Depth (ft)	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	Naphthalene
MW-29	21-Feb-07	25-28	BDL	BDL	BDL	BDL	BDL	BDL
MW-30D	22-Feb-07	25-28	BDL	BDL	BDL	BDL	BDL	BDL
MW-31	20-Feb-07	35-39	BDL	BDL	BDL	BDL	BDL	BDL
MW-32D	23-Feb-07	24-28	BDL	BDL	BDL	BDL	BDL	BDL
MW-33	20-Feb-07	25-28	BDL	BDL	BDL	BDL	BDL	BDL
MW-34D	21-Feb-07	25-28	BDL	BDL	BDL	BDL	BDL	BDL
MW-35	21-Feb-07	15-20	BDL	BDL	BDL	BDL	BDL	BDL
MW-36D	22-Feb-07	25-28	BDL	BDL	BDL	BDL	BDL	BDL
MW-37	21-Feb-07	0-4	BDL	BDL	BDL	BDL	BDL	BDL
MW-38	23-Feb-07	0-4	BDL	BDL	BDL	BDL	BDL	BDL
MW-39	23-Feb-07	0-4	BDL	BDL	BDL	BDL	BDL	BDL

NOTES:
All units in mg/kg except where noted.
Total BTEX - sum of detected Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8260B.
MTBE - Methyl tert-butyl ether
BDL - Below Detection Limit
NA - Not Analyzed
ft - feet

TABLE 1

Summary of Water Table Elevations

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Casing Elevation	Date Measured	Depth to Water	Water Table Elevation	Depth to Product	Product Thickness
MW-1	203.57	18-Jul-94	-	-	-	-
MW-1R	203.07	11-Nov-96	9.71	193.36	-	-
		19-Jun-03	8.82	194.25	-	-
		15-Apr-04	10.52	192.55	-	-
		15-Jun-06	10.13	192.94	-	-
	200.78	7-Mar-07	9.86	190.92		
		29-Aug-07	10.86	189.92	-	-
MW-2	203.91	18-Jul-94	9.94	193.97	-	-
		11-Nov-96	10.35	193.56	-	-
		19-Jun-03	8.97	194.94	-	-
		15-Apr-04	10.68	193.23	-	-
		15-Jun-06	DRY	DRY	-	-
	202.42	7-Mar-07	10.28	192.14		
		29-Aug-07	11.32	191.10	-	-
MW-3	203.21	18-Jul-94	7.15	196.06	-	-
		11-Nov-96	DRY	-	-	-
		19-Jun-03	7.08	196.13	-	-
		15-Apr-04	8.79	194.42	-	-
		16-Jun-06	DRY	DRY	-	-
	200.61	8-Mar-07	DRY	DRY		
		29-Aug-07	DRY	DRY	-	-
MW-4D	203.28	18-Jul-94	9.92	193.36	-	-
		15-Apr-04	DESTROYED		-	-
MW-5	197.99	18-Jul-94	6.00	191.99	-	-
		11-Nov-96	5.60	192.39	-	-
		13-Oct-03	5.91	192.08	-	-
		15-Apr-04	5.87	192.12	-	-
		16-Jun-06	5.82	192.17	-	-
	195.40	8-Mar-07	5.77	189.63		
		30-Aug-07	6.62	188.78	-	-
MW-6	196.60	18-Jul-94	5.47	191.13	-	-
		11-Jan-97	4.34	192.26	-	-
		13-Oct-03	5.00	191.60	-	-
		15-Apr-04	4.95	191.65	-	-
		16-Jun-06	4.86	191.74	-	-
	194.22	8-Mar-07	4.90	189.32		
		29-Aug-07	5.41	188.81	-	-

TABLE 1

Summary of Water Table Elevations

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Casing Elevation	Date Measured	Depth to Water	Water Table Elevation	Depth to Product	Product Thickness
MW-7	196.70	18-Jul-94	4.42	192.28	-	-
		11-Nov-96	4.59	192.11	-	-
		13-Oct-03	4.95	191.75	-	-
		15-Apr-04	4.90	191.80	-	-
	196.21	15-Jun-06	Damaged		-	-
	193.86	9-Mar-07	4.28	189.58		
		30-Aug-07	4.94	188.92	-	-
MW-8	203.36	18-Jul-94	-	-	-	-
		11-Nov-96	9.10	194.26	-	-
		19-Jun-03	8.18	195.18	-	-
		15-Apr-04	10.23	193.13	-	-
		16-Jun-06	8.54	194.82	-	-
	199.70	8-Mar-07	9.10	190.60		
		29-Aug-07	9.86	189.84	-	-
MW-9	201.31	18-Jul-94	-	-	-	-
		11-Nov-96	6.70	194.61	-	-
		19-Jun-03	6.09	195.22	-	-
		15-Apr-04	7.79	193.52	-	-
		15-Jun-06	6.02	195.29	-	-
	197.82	8-Mar-07	7.30	190.52		
		29-Aug-07	7.48	190.34	-	-
MW-10	202.47	11-Nov-96	Free product		-	-
		19-Jun-03	NM	NM	-	-
		15-Apr-04	9.24	193.23	-	-
		16-Jun-06	9.24	193.23	-	-
	200.12	8-Mar-07	9.66	190.46		
		29-Aug-07	10.18	189.94	-	-
MW-11D	202.98	15-Apr-04	13.81	189.17	-	-
		15-Jun-06	10.12	192.86	-	-
		11-Aug-06	11.02	191.96	-	-
	200.89	7-Mar-07	10.31	190.58		
		29-Aug-07	NG	NG	-	-
MW-12	203.51	15-Apr-04	10.26	193.25	-	-
		15-Jun-06	10.44	193.07	-	-
		11-Aug-06	10.78	192.73	-	-
	201.37	7-Mar-07	9.94	191.43		
		29-Aug-07	11.08	190.29	-	-

TABLE 1

Summary of Water Table Elevations

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Casing Elevation	Date Measured	Depth to Water	Water Table Elevation	Depth to Product	Product Thickness
MW-13	201.49	15-Apr-04	8.71	192.78	-	-
		15-Jun-06	8.91	192.58	-	-
	199.39	8-Mar-07	9.20	190.19		
		29-Aug-07	9.54	189.85	-	-
MW-14D	201.87	15-Apr-04	10.09	191.78	-	-
		15-Jun-06	10.13	191.74	-	-
	199.83	8-Mar-07	9.95	189.88		
		29-Aug-07	NG	NG	-	-
MW-15	203.58	15-Apr-04	6.51	197.07	-	-
		15-Jun-06	7.74	195.84	-	-
		11-Aug-06	8.01	195.57	-	-
	200.83	8-Mar-07	7.59	193.24		
		29-Aug-07	8.37	192.46	-	-
MW-16	202.44	15-Apr-04	10.24	192.20	-	-
		16-Jun-06	9.83	192.61	-	-
	200.35	7-Mar-07	9.73	190.62		
		29-Aug-07	10.62	189.73	-	-
MW-17	201.41	15-Jun-06	9.02	192.39	-	-
		11-Aug-06	10.40	191.01	-	-
	199.36	8-Mar-07	10.02	189.34		
		29-Aug-07	10.42	188.94	-	-
MW-18	202.12	15-Jun-06	7.87	194.25	-	-
	200.34	8-Mar-07	7.94	192.40		
		29-Aug-07	8.63	191.71	-	-
MW-19	197.57	16-Jun-06	5.95	191.62	-	-
		11-Aug-06	6.40	191.17	-	-
	195.29	8-Mar-07	5.95	189.34		
		29-Aug-07	6.59	188.70	-	-
MW-20	198.24	16-Jun-06	5.73	192.51	-	-
	195.77	8-Mar-07	5.62	190.15		
		30-Aug-07	6.52	189.25	-	-
MW-21	197.37	16-Jun-06	5.54	191.83	-	-
	195.03	8-Mar-07	5.64	189.39		
		30-Aug-07	6.16	188.87	-	-
MW-22	196.70	16-Jun-06	4.54	192.16	-	-
	194.12	9-Mar-07	4.90	189.22		
		30-Aug-07	5.30	188.82	-	-

TABLE 1

Summary of Water Table Elevations

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Casing Elevation	Date Measured	Depth to Water	Water Table Elevation	Depth to Product	Product Thickness
MW-23D	202.88	15-Jun-06	10.84	192.04	-	-
	200.74	7-Mar-07	9.46	191.28		
		30-Aug-07	NG	NG	-	-
MW-24	201.14	16-Jun-06	7.60	193.54	-	-
	198.98	7-Mar-07	7.66	191.32		
		29-Aug-07	8.13	190.85	-	-
MW-25	201.63	16-Jun-06	8.13	193.50	-	-
	199.51	7-Mar-07	8.24	191.27		
		29-Aug-07	8.26	191.25	-	-
MW-26	202.84	16-Jun-06	9.40	193.44	-	-
	201.71	7-Mar-07	9.41	192.30		
		29-Aug-07	9.53	192.18	-	-
MW-27D	200.72	16-Jun-06	11.86	188.86	-	-
	198.70	8-Mar-07	8.71	189.99	-	-
		29-Aug-07	NG	NG	-	-
MW-28D	201.58	15-Jun-06	10.44	191.14	-	-
	199.55	8-Mar-07	9.28	190.27	-	-
		30-Aug-07	NG	NG	-	-
MW-29	203.53	9-Mar-07	14.28	189.25	-	-
		30-Aug-07	15.03	188.50	-	-
MW-30D	203.76	9-Mar-07	11.12	192.64	-	-
		30-Aug-07	NG	NG	-	-
MW-31	207.52	9-Mar-07	17.11	190.41	-	-
		30-Aug-07	NG	NG	-	-
MW-32D	207.88	9-Mar-07	27.36	180.52	-	-
		30-Aug-07	NG	NG	-	-
MW-33	209.34	9-Mar-07	20.89	188.45	-	-
		30-Aug-07	21.00	188.34	-	-
MW-34D	209.57	9-Mar-07	19.91	189.66	-	-
		30-Aug-07	NG	NG	-	-
MW-35	207.50	9-Mar-07	17.79	189.71	-	-
		30-Aug-07	18.19	189.31	-	-
MW-36D	207.57	9-Mar-07	34.33	173.24	-	-
		30-Aug-07	NG	NG		
MW-37	196.71	9-Mar-07	7.62	189.09	-	-
		30-Aug-07	7.97	188.74		
MW-38	192.30	9-Mar-07	6.26	186.04	-	-
		30-Aug-07	6.56	185.74		

TABLE 1

Summary of Water Table Elevations

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Casing Elevation	Date Measured	Depth to Water	Water Table Elevation	Depth to Product	Product Thickness
MW-39	195.97	9-Mar-07	6.65	189.32	-	-
		30-Aug-07	6.95	189.02		
IW-1	NM	16-Jun-06	9.16	NM	-	-
		8-Mar-07	9.19	NM	-	-
IW-2	NM	16-Jun-06	9.05	NM	-	-
		8-Mar-07	9.71	NM	-	-
IW-3	NM	16-Jun-06	9.79	NM	-	-
		8-Mar-07	10.28	NM	-	-
IW-4	NM	16-Jun-06	9.64	NM	-	-
		7-Mar-07	9.82	NM	-	-
IW-5	NM	16-Jun-06	10.25	NM	-	-
		8-Mar-07	10.50	NM	-	-
IW-6	NM	16-Jun-06	9.41	NM	-	-
		7-Mar-07	9.20	NM	-	-
IW-7	NM	16-Jun-06	9.55	NM	-	-
		8-Mar-07	9.43	NM	-	-
IW-8	NM	16-Jun-06	10.05	NM	-	-
		8-Mar-07	10.40	NM	-	-
IW-9	NM	16-Jun-06	9.61	NM	9.52	0.09
		11-Aug-06	11.55	NM	11.15	0.40
Pre EFVR		7-Dec-06	10.85	NM	10.82	0.03
Post EFVR		7-Dec-06	11.03	NM	-	-
		8-Mar-07	10.67	NM	-	-
IW-10	NM	16-Jun-06	9.45	NM	-	-
		7-Mar-07	9.29	NM	-	-
IW-11	NM	16-Jun-06	10.40	NM	-	-
		7-Mar-07	10.42	NM	-	-
IW-12	NM	16-Jun-06	9.76	NM	9.72	0.04
		7-Mar-07	9.89	NM	-	-
IW-13	NM	16-Jun-06	9.79	NM	-	-
		7-Mar-07	10.19	NM	-	-
IW-14	NM	19-Jun-03	9.12	NM	-	-
		16-Jun-06	10.00	NM	-	-
		7-Mar-07	9.82	NM	-	-
IW-15	NM	16-Jun-06	9.86	NM	-	-
		7-Mar-07	9.93	NM	-	-
IW-16	NM	16-Jun-06	9.98	NM	-	-
		7-Mar-07	9.95	NM	-	-

TABLE 1

Summary of Water Table Elevations

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Casing Elevation	Date Measured	Depth to Water	Water Table Elevation	Depth to Product	Product Thickness
IW-17	NM	16-Jun-06	10.23	NM	-	-
		7-Mar-07	10.00	NM	-	-
IW-18	NM	16-Jun-06	9.98	NM	-	-
		7-Mar-07	9.89	NM	-	-
IW-19	NM	16-Jun-06	10.54	NM	-	-
		7-Mar-07	10.24	NM	-	-
IW-20	NM	16-Jun-06	10.14	NM	-	-
		7-Mar-07	10.00	NM	-	-
IW-21	NM	16-Jun-06	NM*	NM	NM	NM
		11-Aug-06	10.99	NM	10.98	0.01
		7-Mar-07	10.21	NM	-	-
IW-22	NM	16-Jun-06	8.31	NM	-	-
		7-Mar-07	8.61	NM	-	-
IW-23	NM	16-Jun-06	10.55	NM	-	-
		8-Mar-07	10.93	NM	-	-
IW-24	NM	16-Jun-06	10.07	NM	-	-
		7-Mar-07	9.97	NM	-	-
IW-25	NM	16-Jun-06	9.79	NM	-	-
		7-Mar-07	9.70	NM	-	-
IW-26	NM	16-Jun-06	8.21	NM	-	-
		7-Mar-07	8.42	NM	-	-
IW-27	NM	16-Jun-06	7.99	NM	-	-
		7-Mar-07	8.28	NM	-	-
IW-28	NM	16-Jun-06	9.31	NM	-	-
		7-Mar-07	9.46	NM	-	-
IW-29	NM	16-Jun-06	NM	NM	NM	NM
		9-Mar-07	4.77	NM	-	-
IW-30	NM	16-Jun-06	6.78	NM	-	-
		9-Mar-07	5.93	NM	-	-
IW-31	NM	16-Jun-06	5.49	NM	-	-
		8-Mar-07	5.49	NM	-	-
IW-32	NM	16-Jun-06	5.45	NM	-	-
		8-Mar-07	5.52	NM	-	-
IW-33	NM	16-Jun-06	6.21	NM	-	-
		8-Mar-07	6.68	NM	-	-
IW-34	NM	16-Jun-06	6.39	NM	-	-
		8-Mar-07	6.39	NM	-	-

NOTES:
All measurements in units of feet below the top of casing.
NM - Not Measured
NG - Not Gauged
- = No Data
* IW-21 was not measured because the interface probe was coated in coagulated free product.

TABLE 2

Summary of Field Measurements

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-1R	19-Jun-03	9.6	769	2.26	25.4	NA	NA	NA
	15-Apr-04	6.1	432	1.43	13.7	NA	NA	NA
	15-Jun-06	9.2	446		24.2	NA	NA	NA
	7-Mar-07	6.8	694	2.70	18.2	BDL	BDL	3
	29-Aug-07	6.37	1,430	7.40	29.06	NA	NA	NA
MW-2	19-Jun-03	7.2	719	1.95	24.5	NA	NA	NA
	15-Apr-04	6.5	276	1.45	13.8	NA	NA	NA
	15-Jun-06	DRY						
	7-Mar-07	6.4	627	2.9	19.4	BDL	BDL	2.8
	29-Aug-07	6.16	616	5.86	30.95	NA	NA	NA
MW-3	19-Jun-03	8.1	387	1.49	27.3	NA	NA	NA
	15-Apr-04	NM	NM	NM	NM	NM	NM	NM
	16-Jun-06	DRY						
	8-Mar-07	DRY						
	29-Aug-07	DRY						
MW-5	13-Oct-03	5.8	276	2.17	23.9	NA	NA	NA
	15-Apr-04	6.1	275	1.70	14.2	NA	NA	NA
	16-Jun-06	5.9	265	1.21	22.7	NA	NA	NA
	8-Mar-07	6.1	122	2.37	14.5	1.6	7.7	BDL
	30-Aug-07	6.41	331	7.24	25.83	NA	NA	NA
MW-6	13-Oct-03	5.0	492	2.95	24.1	NA	NA	NA
	15-Apr-04	6.3	420	1.88	14.2	NA	NA	NA
	16-Jun-06	6.4	316	1.47	20.3	NA	NA	NA
	8-Mar-07	6.3	377	2.41	14.4	BDL	BDL	2.4
	29-Aug-07	6.12	305	6.04	26.23	NA	NA	NA
MW-7	13-Oct-03	5.0	350	2.65	24.0	NA	NA	NA
	15-Apr-04	6.0	340	1.67	14.3	NA	NA	NA
	15-Jun-06	Damaged						
	9-Mar-07	6.0	343	2.59	12.0	BDL	BDL	0.7
	30-Aug-07	6.1	398	6.52	25.13	NA	NA	NA
MW-8	19-Jun-03	10.3	728	1.60	25.8	NA	NA	NA
	15-Apr-04	6.2	267	2.44	13.3	NA	NA	NA
	16-Jun-06	6.7	574	1.92	25.0	NA	NA	NA
	8-Mar-07	6.8	660	2.15	15.9	BDL	34	BDL
	29-Aug-07	6.2	1,480	7.85	29.03	NA	NA	NA

TABLE 2

Summary of Field Measurements

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-9	19-Jun-03	9.7	110	1.00	27.5	NA	NA	NA
	15-Apr-04	6.5	402	1.23	13.3	NA	NA	NA
	15-Jun-06	8.0	267	1.27	26.0	NA	NA	NA
	8-Mar-07	6.8	624	3.50	16.9	BDL	BDL	0.6
	29-Aug-07	6.7	1,290	4.31	30.87	NA	NA	NA
MW-10	19-Jun-03	NM	NM	NM	NM	NM	NM	NM
	15-Apr-04	6.1	83.0	3.02	13.4	NA	NA	NA
	16-Jun-06	6.8	1,119	0.20	26.1	NA	NA	NA
	8-Mar-07	6.7	672	1.58	14.7	BDL	BDL	1.4
	29-Aug-07	6.7	2,200	4.64	31.65	NA	NA	NA
MW-11D	15-Apr-04	5.6	222	1.50	18.3	NA	NA	NA
	15-Jun-06	9.4	201	13.03	24.3	NA	NA	NA
	7-Mar-07	6.5	263	3.18	20.1	BDL	BDL	1.2
MW-12	15-Apr-04	6.7	345	3.57	13.1	NA	NA	NA
	15-Jun-06	6.3	436	0.93	27.3	NA	NA	NA
	7-Mar-07	6.5	728	1.25	19.4	BDL	BDL	2.2
	29-Aug-07	6.4	1,470	7.58	28.09	NA	NA	NA
MW-13	15-Apr-04	6.5	162	2.37	13.2	NA	NA	NA
	15-Jun-06	7.8	499	0.73	29.0	NA	NA	NA
	8-Mar-07	6.5	621	2.15	16.9	BDL	BDL	1.6
	29-Aug-07	6.5	1,190	6.32	32.29	NA	NA	NA
MW-14D	15-Apr-04	6.6	241	2.56	23.3	NA	NA	NA
	15-Jun-06	6.4	272	2.02	28.0	NA	NA	NA
	8-Mar-07	6.3	450	2.01	20.3	BDL	BDL	2
	29-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-15	15-Apr-04	6.3	211	3.21	13.5	NA	NA	NA
	15-Jun-06	8.7	214	1.40	25.3	NA	NA	NA
	8-Mar-07	6.0	223	1.88	19.9	BDL	BDL	2
	29-Aug-07	5.7	260	6.87	31.69	NA	NA	NA
MW-16	15-Apr-04	6.5	317	2.21	13.2	NA	NA	NA
	16-Jun-06	6.7	686	1.15	26.3	NA	NA	NA
	7-Mar-07	6.5	625	1.78	19.2	BDL	BDL	2
	29-Aug-07	6.6	663	5.34	30.56	NA	NA	NA

TABLE 2

Summary of Field Measurements

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-17	15-Jun-06	6.8	428	1.05	26.9	NA	NA	NA
	8-Mar-07	6.8	742	2.20	18.8	BDL	BDL	BDL
	29-Aug-07	6.4	1,270	3.35	29.34	NA	NA	NA
MW-18	15-Jun-06	6.7	116	2.18	25.3	NA	NA	NA
	8-Mar-07	5.6	117	2.30	18.8	BDL	BDL	1.3
	29-Aug-07	6.2	125	6.91	30.6	NA	NA	NA
MW-19	16-Jun-06	6.4	414	2.16	21.5	NA	NA	NA
	8-Mar-07	6.4	372	2.56	14.3	BDL	BDL	2.4
	29-Aug-07	6.1	567	6.14	25.2	NA	NA	NA
MW-20	16-Jun-06	7.3	174	2.00	24.5	NA	NA	NA
	8-Mar-07	6.2	212	2.41	15.1	1.5	15	BDL
	30-Aug-07	6.2	261	6.83	25.2	NA	NA	NA
MW-21	16-Jun-06	6.0	351	0.99	21.1	NA	NA	NA
	8-Mar-07	6.3	370	1.79	14.2	BDL	BDL	2
	30-Aug-07	7.2	406	8.33	26.43	NA	NA	NA
MW-22	16-Jun-06	5.9	144	1.01	20.6	NA	NA	NA
	9-Mar-07	6.3	232	1.74	11.7	BDL	BDL	1.8
	30-Aug-07	6.6	201	6.25	26.22	NA	NA	NA
MW-23D	15-Jun-06	9.1	126	6.49	24.3	NA	NA	NA
	7-Mar-07	9.0	235	3.04	19.9	BDL	38	BDL
	30-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-24	16-Jun-06	6.0	390	1.70	25.2	NA	NA	NA
	7-Mar-07	5.9	256	2.00	20.6	BDL	BDL	3.5
	29-Aug-07	6.1	386	3.43	28.33	NA	NA	NA
MW-25	16-Jun-06	6.2	287	2.57	24.4	NA	NA	NA
	7-Mar-07	6.1	312	1.08	19.7	BDL	BDL	3
	29-Aug-07	6.3	303	3.57	27.34	NA	NA	NA
MW-26	16-Jun-06	6.2	243	3.50	23.9	NA	NA	NA
	7-Mar-07	6.5	580	1.39	20.2	BDL	BDL	3.2
	29-Aug-07	6.4	596	4.78	28.17	NA	NA	NA
MW-27D	16-Jun-06	8.9	432	1.85	26.0	NA	NA	NA
	8-Mar-07	8.6	289	2.95	18.8	BDL	76	BDL
	29-Aug-07	NA	NA	NA	NA	NA	NA	NA

TABLE 2

Summary of Field Measurements

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-28D	15-Jun-06	7.4	222	3.88	23.6	NA	NA	NA
	8-Mar-07	9.6	245	5.98	18.6	BDL	9.8	BDL
	29-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-29	9-Mar-07	6.4	127	2.92	20.2	BDL	14	1.4
	30-Aug-07	6.5	215	4.89	26.8	NA	NA	NA
MW-30D	9-Mar-07	11.2	230	4.31	21.2	BDL	23	BDL
	30-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-31	9-Mar-07	7.8	167	3.40	21.4	BDL	BDL	BDL
	30-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-32D	9-Mar-07	8.8	208	3.82	19.4	BDL	27	BDL
	30-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-33	9-Mar-07	6.4	140	3.01	20.4	BDL	BDL	2.2
	30-Aug-07	6.3	185	5.01	26.1	NA	NA	NA
MW-34D	9-Mar-07	6.8	204	2.19	20.8	BDL	41	BDL
	30-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-35	9-Mar-07	6.5	175	1.42	20.3	BDL	14	2.3
	30-Aug-07	6.4	186	2.43	25.4	NA	NA	NA
MW-36D	9-Mar-07	8.3	187	4.03	20.2	BDL	47	BDL
	30-Aug-07	NA	NA	NA	NA	NA	NA	NA
MW-37	9-Mar-07	6.1	204	3.64	14.0	BDL	23	2
	30-Aug-07	5.7	254	6.47	25.7	NA	NA	NA
MW-38	9-Mar-07	6.8	211	3.64	14.0	BDL	8	BDL
	30-Aug-07	6.9	212	5.87	25.1	NA	NA	NA
MW-39	9-Mar-07	6.1	118	5.71	13.9	BDL	28	0.5
	30-Aug-07	6.1	124	7.71	24.2	NA	NA	NA
IW-1	15-Jun-06	8.2	466	0.87	28.0	NA	NA	NA
	8-Mar-07	6.5	597	2.57	16.2	BDL	BDL	1.8
IW-2	15-Jun-06	10.1	528	0.99	27.5	NA	NA	NA
	8-Mar-07	6.8	917	2.82	18.1	BDL	BDL	BDL
IW-3	16-Jun-06	6.7	955	0.39	25.5	NA	NA	NA
	8-Mar-07	6.7	789	3.75	16.2	1.5	BDL	0.8
IW-4	16-Jun-06	6.7	942	1.38	23.4	NA	NA	NA
	7-Mar-07	6.3	246	0.88	21.0	BDL	BDL	BDL
IW-5	16-Jun-06	6.8	983	1.00	25.1	NA	NA	NA
	8-Mar-07	6.6	693	2.61	16.8	BDL	BDL	2.2

TABLE 2

Summary of Field Measurements

Hess Station # 40245
7351 Two Notch Road
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Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
IW-6	16-Jun-06	6.9	1229	0.94	23.8	NA	NA	NA
	7-Mar-07	6.7	922	2.01	19.5	BDL	BDL	2
IW-7	16-Jun-06	6.8	1275	0.65	24.2	NA	NA	NA
	8-Mar-07	6.8	910	2.56	16.0	BDL	BDL	BDL
IW-8	16-Jun-06	7.4	924	0.85	23.9	NA	NA	NA
	8-Mar-07	6.7	856	2.68	18.2	BDL	BDL	1.7
IW-9	15-Jun-06	free product						
	8-Mar-07	6.7	814	1.79	17.2	BDL	BDL	1.2
IW-10	16-Jun-06	6.8	1016	0.97	22.9	NA	NA	NA
	7-Mar-07	6.7	786	2.15	19.0	BDL	BDL	0.9
IW-11	16-Jun-06	6.5	614	0.86	23.3	NA	NA	NA
	7-Mar-07	6.5	509	3.27	19.0	BDL	BDL	3.6
IW-12	16-Jun-06	free product						
	7-Mar-07	6.6	576	1.82	18.8	BDL	BDL	2.2
IW-13	15-Jun-06	7.7	399	0.63	24.4	NA	NA	NA
	7-Mar-07	6.5	651	1.47	18.3	BDL	9.2	2.8
IW-14	19-Jun-03	6.2	968	0.94	25.5	NA	NA	NA
	15-Jun-06	9.2	393	1.32	24.6	NA	NA	NA
	7-Mar-07	6.7	687	2.43	18.4	BDL	BDL	3.2
IW-15	15-Jun-06	7.2	360	1.14	22.6	NA	NA	NA
	7-Mar-07	6.4	626	2.84	18.4	BDL	44	2.6
IW-16	15-Jun-06	8.6	390	1.19	25.7	NA	NA	NA
	7-Mar-07	7.2	619	1.57	18.7	BDL	94	2.2
IW-17	15-Jun-06	8.4	323	1.16	23.9	NA	NA	NA
	7-Mar-07	6.3	549	2.57	18.8	BDL	14	2
IW-18	15-Jun-06	7.6	380	0.96	26.1	NA	NA	NA
	7-Mar-07	6.2	487	2.12	19.6	BDL	BDL	2
IW-19	15-Jun-06	8.6	342	0.42	23.7	NA	NA	NA
	7-Mar-07	6.6	617	2.10	19.5	BDL	BDL	2
IW-20	15-Jun-06	7.5	331	1.21	25.4	NA	NA	NA
	7-Mar-07	6.3	535	2.52	19.5	BDL	BDL	2.7
IW-21	15-Jun-06	NM	NM	NM	NM	NM	NM	NM
	7-Mar-07	6.6	770	1.44	19.6	BDL	BDL	1.7
IW-22	16-Jun-06	6.8	645	1.86	24.6	NA	NA	NA
	7-Mar-07	6.6	701	2.20	19.4	BDL	BDL	2

TABLE 2

Summary of Field Measurements

Hess Station # 40245
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Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
IW-23	16-Jun-06	7.0	638	1.17	24.4	NA	NA	NA
	8-Mar-07	6.7	614	2.54	17.2	0.11	11	2.5
IW-24	16-Jun-06	6.7	1323	0.78	22.9	NA	NA	NA
	7-Mar-07	6.8	983	1.96	19.2	BDL	BDL	1.8
IW-25	16-Jun-06	6.8	1201	0.69	22.8	NA	NA	NA
	7-Mar-07	6.6	932	15.81	19.9	BDL	BDL	1.4
IW-26	16-Jun-06	6.8	729	0.84	23.9	NA	NA	NA
	7-Mar-07	6.8	503	1.63	18.7	BDL	BDL	1.2
IW-27	16-Jun-06	6.5	541	0.78	26.3	NA	NA	NA
	7-Mar-07	6.4	539	19.30	19.3	BDL	BDL	4.4
IW-28	16-Jun-06	6.5	999	0.71	24.7	NA	NA	NA
	7-Mar-07	6.5	809	2.43	20.4	BDL	BDL	3.4
IW-29	16-Jun-06	NM	NM	NM	NM	NM	NM	NM
	9-Mar-07	6.1	327.0	2.7	11.8	BDL	37	2.2
IW-30	16-Jun-06	6.1	310	1.40	21.6	NA	NA	NA
	9-Mar-07	6.1	210	2.68	11.8	BDL	BDL	BDL
IW-31	16-Jun-06	6.3	252	1.30	21.2	NA	NA	NA
	8-Mar-07	6.3	340	1.90	14.5	BDL	BDL	BDL
IW-32	16-Jun-06	6.5	359	1.53	22.2	NA	NA	NA
	8-Mar-07	6.4	374	2.50	14.4	BDL	BDL	1.9
IW-33	16-Jun-06	5.9	345	1.04	20.6	NA	NA	NA
	8-Mar-07	6.1	279	2.96	14.7	BDL	7.6	2.7
IW-34	16-Jun-06	6.1	367	2.45	22.3	NA	NA	NA
	8-Mar-07	6.4	323	2.79	14.8	BDL	38	2.2
CS-1	9-Mar-07	6.9	58	7.54	11.5	0.17	8.1	BDL
CS-2	9-Mar-07	7.0	59	7.51	11.0	0.16	8.2	BDL
CS-3	9-Mar-07	7.0	51	7.61	11.9	0.17	8.3	BDL

NOTES:
Specific Conductivity (umhos/cm)
Dissolved oxygen, Nitrate, Sulfate, Ferrous Iron in milligrams per liter (mg/L)
NM - Not measured
BDL - Below Detection Limit
NA - Not Analyzed
- = No Data

TABLE 3

Summary of Groundwater and Surface Water Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	MTBE	Naphthalene	EDB	Lead	1,2-DCA
RBSLs		***5***	***1000***	***700***	***10,000***	-	***40***	***25***	***0.05***	***15***	***15***
MW-1	12/22/1989	**2,570**	366	BDL	455	3,391	NS	NS	-	-	-
	10/1/1990	**6,680**	**3,140**	**1,260**	1,622	12,702	NS	NS	-	-	-
	4/29/1991	**4,500**	**4,100**	**3,920**	1,450	13,970	NS	NS	-	-	-
	10/6/1992	**9,200**	**9,100**	**1,800**	9,000	29,100	**8,900**	NS	-	-	-
	7/28/1994	**8,000**	**7,700**	680	1,400	17,780	**20,000**	**680**	-	-	-
MW-1R	11/11/1996	**13,800**	**22,700**	**2,530**	**10,900**	49,930	**3,180**	**384**	-	-	-
	6/19/2003	**547**	17.6	41.5	101	707	**149**	**207**	-	-	-
	4/15/2004	**3,760**	48.9	323	728	4,860	**545**	**2240**	-	-	-
	6/15/2006	**3,300**	BDL	270	100	3,670	**99**	**600**	BDL	NA	NA
	3/7/2007	**2,200**	BDL	280	81	2,561	**100**	**900**	BDL	BDL	BDL
	8/29/2007	**3,680**	21.6	245	92.3	4,039	**89.9**	**1,240**	-	-	-
MW-2	10/1/1990	**825**	498	22.7	758.5	2,104.2	NS	NS	-	-	-
	4/29/1991	**1,730**	240	410	290	2,670	NS	NS	-	-	-
	11/22/1991	**1,370**	740	20	630	2,760	NS	NS	-	-	-
	10/6/1992	**100**	260	40	660	1,060	**200**	NS	-	-	-
	7/18/1994	**97**	2	12	71	182	**150**	**92**	-	-	-
	11/11/1996	**2,620**	131	257	910	3,918	**648**	**134**	-	-	-
	6/19/2003	**1,900**	501	**857**	3,862	7,120	**251**	**557**	-	-	-
	4/15/2004	**628**	10.1	223	469	1,330	**71.7**	BDL	-	-	-
	6/15/2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/7/2007	**140**	9.4	BDL	50	199	24	**170**	BDL	BDL	BDL
	8/29/2007	**635**	14.3	**1,110**	2,870	4,629	**61.5**	**208**	-	-	-
MW-3	10/1/1990	1.18	1.15	1.9	7.12	11.35	NS	NS	-	-	-
	4/29/1991	BDL	BDL	BDL	BDL	BDL	NS	NS	-	-	-
	11/22/1991	**121**	61	BDL	50	232	NS	NS	-	-	-
	10/6/1992	**11**	BDL	BDL	BDL	11	**464**	NS	-	-	-
	7/18/1994	3	BDL	BDL	BDL	3	**100**	BDL	-	-	-
	6/19/2003	3.46	1.44	BDL	BDL	4.90	**40.3**	BDL	-	-	-
	4/15/2004	NS	NS	NS	NS	NS	NS	NS	-	-	-
	6/15/2006	NS	NS	NS	NS	NS	NS	NS	-	-	-
	3/8/2007	DRY									
	8/29/2007	DRY									
MW-4	10/1/1990	**27.3**	239	55.5	300	621.8	NS	NS	-	-	-
	4/29/1991	BDL	BDL	BDL	BDL	BDL	NS	NS	-	-	-
	11/22/1991	4	1	BDL	2	BDL	NS	NS	-	-	-
	10/6/1992	BDL	BDL	BDL	BDL	BDL	BDL	NS	-	-	-
	7/18/1994	BDL	BDL	BDL	BDL	BDL	7	BDL	-	-	-
	7/28/1994	BDL	BDL	BDL	BDL	BDL	8	BDL	-	-	-
	4/15/2004	WELL DESTROYED									

TABLE 3

Summary of Groundwater and Surface Water Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	MTBE	Naphthalene	EDB	Lead	1,2-DCA
MW-5	4/29/1991	BDL	BDL	BDL	BDL	BDL	NS	NS	-	-	-
	11/22/1991	4	1	BDL	BDL	5	NS	NS	-	-	-
	10/6/1992	BDL	BDL	BDL	BDL	BDL	BDL	NS	-	-	-
	7/18/1994	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	11/11/1996	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	10/13/2003	BDL	BDL	BDL	BDL	BDL	**42.0**	BDL	-	-	-
	4/15/2004	BDL	BDL	BDL	1.12	1.12	27.6	BDL	-	-	-
	6/15/2006	BDL	BDL	BDL	BDL	BDL	30	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	6	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	21.5	<1.0	-	-	-
MW-6	4/29/1991	**230**	196	180	98	704	NS	NS	-	-	-
	11/22/1991	**3,650**	**7,100**	675	3,700	15,125	NS	NS	-	-	-
	10/6/1992	**440**	**2,400**	370	2,250	5,460	30	NS	-	-	-
	7/18/1994	**BDL**	2	BDL	BDL	2	BDL	BDL	-	-	-
	1/11/1997	**1,250**	**9,340**	**941**	7,800	19,331	BDL	**219**	-	-	-
	10/13/2003	**374**	2.78	17.1	172	566	**117**	**76**	-	-	-
	4/15/2004	**452**	2.74	1.76	64.6	521	**76.6**	**103**	-	-	-
	6/15/2006	**20**	BDL	BDL	BDL	20	19	**48**	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	26	**80**	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	2.2	2.2	2.8	10.1	-	-	-
MW-7	4/29/1991	**1,200**	**2,070**	**2,330**	1,340	6,940	NS	NS	-	-	-
	11/22/1991	**1,600**	**4,175**	650	4,875	11,300	NS	NS	-	-	-
	10/6/1992	**160**	700	320	1,740	2,920	**52**	NS	-	-	-
	7/18/1994	**46**	11	11	150	218	**56**	4	-	-	-
	11/11/1996	BDL	BDL	BDL	4.58	4.58	BDL	BDL	-	-	-
	10/31/2003	**552**	3.90	2.22	179	737	**91**	22.4	-	-	-
	4/15/2004	**494**	1.74	1.20	74.3	571	**48**	**28.8**	-	-	-
	6/15/2006	WELL DESTROYED									
	3/9/2007	**51**	BDL	BDL	BDL	51	34	BDL	BDL	14	BDL
	8/30/2007	2.9	<1.0	<1.0	2.0	4.9	18.0	2.5	-	-	-
MW-8	4/29/1991	**41,000**	**37,600**	**25,000**	**12,000**	115,600	NS	NS	-	-	-
	10/6/1992	**1,100**	**3,000**	**900**	4,400	9,400	BDL	NS	-	-	-
	7/28/1994	**23**	BDL	55	22	100	BDL	**490**	-	-	-
	11/11/1996	**635**	BDL	203	153	991	**268**	**96.9**	-	-	-
	6/19/2003	**211**	3.52	15.7	14.2	244.42	**43.6**	**77.2**	-	-	-
	4/15/2004	**38.2**	BDL	6.47	5.01	49.68	34.6	**77.6**	-	-	-
	6/15/2006	**63**	BDL	BDL	BDL	63	5.9	14	BDL	NA	NA
	3/8/2007	**8**	BDL	BDL	BDL	8	BDL	9.1	BDL	BDL	BDL
	8/29/2007	**16.1**	6.5	4.6	26.7	53.9	6.7	**29.6**	-	-	-
MW-9	4/29/1991	**330**	5	10	2	347	NS	NS	-	-	-
	10/6/1992	**20**	BDL	110	250	380	15	NS	-	-	-
	7/28/1994	**5**	2	BDL	18	25	36	3	-	-	-
	11/11/1996	2.8	BDL	BDL	2.27	5.07	29.9	2.74	-	-	-
	6/19/2003	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	4/15/2004	BDL	1.69	BDL	BDL	1.69	5.99	4.07	-	-	-
	6/15/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	3.0	<1.0	-	-	-

TABLE 3

Summary of Groundwater and Surface Water Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	MTBE	Naphthalene	EDB	Lead	1,2-DCA
MW-10	6/19/2003	NS	NS	NS	NS	NS	NS	NS	-	-	-
	4/15/2004	**2,110**	10	624	2,418	5,162	**1,050**	**1,040**	-	-	-
	6/15/2006	**2,700**	BDL	**1,100**	190	3,990	**62**	**1,700**	BDL	NA	NA
	3/8/2007	**740**	BDL	130	400	1,270	**47**	**330**	BDL	BDL	BDL
	8/29/2007	**415**	1.1	276	176	868	29.1	**153**	-	-	-
MW-11D	4/15/2004	**54.3**	33.6	14.5	66.2	169	**50.4**	**55.8**	-	-	-
	6/15/2006	BDL	BDL	BDL	BDL	BDL	14	BDL	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	6.3	BDL	BDL	6.7	BDL
	8/30/2007	<1.0	1.1	<1.0	2.2	3.3	7.6	<1.0	-	-	-
MW-12	4/15/2004	**59.4**	5.39	137	315	517	2.74	11.7	-	-	-
	8/18/2005	**370**	23	330	830	1553	BDL	**63**	-	-	-
	6/15/2006	**950**	BDL	**1200**	2300	4450	BDL	**1200**	BDL	NA	NA
	3/7/2007	**1000**	BDL	**1100**	1800	3900	BDL	**110**	BDL	BDL	BDL
	8/29/2007	**407**	<5.0	367	745	1519	6.8	**33.7**	-	-	-
MW-13	4/15/2004	**122**	183	52.2	188	545	32.1	6.69	-	-	-
	8/18/2005	BDL	BDL	BDL	BDL	BDL	4.7	12	-	-	-
	6/15/2006	BDL	BDL	BDL	BDL	BDL	12	16	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	8.9	14	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	2.0	2.0	7.1	3.1	-	-	-
MW-14D	4/15/2004	**76.7**	198	61	199	535	12.0	7.6	-	-	-
	6/15/2006	BDL	BDL	BDL	BDL	BDL	11	6.6	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	13	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	2.6	2.6	9.0	<1.0	-	-	-
MW-15	4/15/2004	**85.2**	74.4	17	63.7	240	**42.1**	16	-	-	-
	8/18/2005	BDL	BDL	BDL	BDL	BDL	2.5	BDL	-	-	-
	6/15/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	1.8	<1.0	-	-	-
MW-16	4/15/2004	**25,300**	**17,900**	**13,300**	**35,900**	92,400	**147**	**12,500**	-	-	-
	6/16/2006	**5,800**	**1,400**	**2,800**	8,100	18,100	BDL	**640**	BDL	NA	NA
	3/7/2007	**3,800**	370	**1,800**	3,300	9,270	BDL	**630**	BDL	BDL	BDL
	8/29/2007	**83.7**	7.1	71.5	155	317	<1.0	15.8	-	-	-
MW-17	6/15/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	6	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	2.1	2.1	8.6	<1.0	-	-	-
MW-18	6/15/2006	BDL	BDL	BDL	BDL	BDL	5.4	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	6.3	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	5.1	<1.0	-	-	-
MW-19	6/16/2006	**35**	BDL	BDL	5	40	36	**48**	BDL	NA	NA
	3/8/2007	**23**	BDL	BDL	BDL	23	27	**84**	BDL	BDL	BDL
	8/29/2007	**7.3**	1.0	<1.0	3.7	12	14.6	**66.8**	-	-	-
MW-20	6/16/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6.5	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	3.5	<1.0	-	-	-
MW-21	6/16/2006	**36**	BDL	BDL	BDL	36	9	21	BDL	NA	NA
	3/8/2007	**60**	BDL	BDL	BDL	60	19	**53**	BDL	BDL	BDL
	8/30/2007	**5.1**	<1.0	<1.0	2.4	7.5	5.4	**28.9**	-	-	-

TABLE 3

Summary of Groundwater and Surface Water Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	MTBE	Naphthalene	EDB	Lead	1,2-DCA
MW-22	6/15/2006	BDL	BDL	BDL	BDL	BDL	22	BDL	BDL	NA	NA
	3/9/2007	BDL	BDL	BDL	BDL	BDL	**61**	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	3.7	<1.0	-	-	-
MW-23D	6/15/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-24	6/16/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-25	6/16/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-26	6/16/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-27D	6/16/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	2.1	2.1	<1.0	<1.0	-	-	-
MW-28D	6/15/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	2.0	<1.0	-	-	-
MW-29	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-30D	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-31	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-32D	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	2.3	2.3	<1.0	<1.0	-	-	-
MW-33	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-34D	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-35	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-36D	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	2.3	<1.0	<2.0	2.3	<1.0	<1.0	-	-	-
MW-37	3/9/2007	BDL	BDL	BDL	BDL	BDL	9	BDL	BDL	10	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	4.6	<1.0	-	-	-
MW-38	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**27**	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
MW-39	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	11	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-

TABLE 3

Summary of Groundwater and Surface Water Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	MTBE	Naphthalene	EDB	Lead	1,2-DCA
IW-1	6/15/2006	BDL	BDL	BDL	BDL	BDL	8.8	130	BDL	NA	NA
	3/8/2007	**10**	21	BDL	BDL	31	13	**150**	BDL	**53**	BDL
IW-2	6/15/2006	9.6	BDL	8.9	BDL	18.5	11	13	BDL	NA	NA
	3/8/2007	BDL	16	BDL	19	34.6	9.3	BDL	BDL	7.9	BDL
IW-3	6/16/2006	180	19	87	69	355	15	18	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	16	BDL	BDL	BDL	BDL
IW-4	6/16/2006	3,300	BDL	1,900	450	5,650	140	720	BDL	NA	NA
	3/7/2007	**1,100**	BDL	**800**	3,730	5,630	BDL	**330**	BDL	BDL	BDL
IW-5	6/16/2006	95	BDL	12	19	126	27	7	BDL	NA	NA
	3/8/2007	**280**	BDL	23	BDL	303	27	**31**	BDL	9.1	BDL
IW-6	6/16/2006	3,200	BDL	110	13	3,323	BDL	340	BDL	NA	NA
	3/7/2007	**2,100**	BDL	120	BDL	2,220	BDL	**300**	BDL	BDL	BDL
IW-7	6/16/2006	490	BDL	30	8	528	30	35	BDL	NA	NA
	3/8/2007	**300**	BDL	19	13	332	22	**43**	BDL	BDL	BDL
IW-8	6/16/2006	290	BDL	45	27	362	24	110	BDL	NA	NA
	3/8/2007	**12**	BDL	BDL	BDL	12	25	BDL	BDL	BDL	BDL
IW-9	6/15/2006	FREE PRODUCT									
	3/8/2007	**6,200**	**15,000**	**3,000**	**15,900**	40,100	**140**	**1,100**	BDL	BDL	BDL
IW-10	6/16/2006	1,100	BDL	BDL	33	1,133	BDL	93	BDL	NA	NA
	3/7/2007	**1,100**	BDL	65	BDL	1,165	BDL	BDL	BDL	BDL	BDL
IW-11	6/16/2006	760	33	320	390	1,503	36	130	BDL	NA	NA
	3/7/2007	**440**	BDL	300	188	928	19	**130**	BDL	BDL	BDL
IW-12	6/16/2006	FREE PRODUCT									
	3/7/2007	**7,100**	**7,300**	**2,500**	**15,800**	32,700	BDL	**1,100**	BDL	7.2	BDL
IW-13	6/15/2006	11,000	35,000	16,000	76,000	138,000	BDL	5,200	BDL	NA	NA
	3/7/2007	**7,500**	**25,000**	**4,400**	**21,600**	58,500	BDL	BDL	BDL	BDL	BDL
IW-14	6/19/2003	1,880	7,530	2,210	9,740	21,360	330	1,920	NA	NA	NA
	6/15/2006	7,000	14,000	4,100	16,000	41,100	BDL	1,300	BDL	NA	NA
	3/7/2007	**11,000**	**12,000**	**5,600**	**23,900**	52,500	BDL	**1,100**	BDL	BDL	BDL
IW-15	6/15/2006	480	30	160	220	890	49	370	BDL	NA	NA
	3/7/2007	**480**	BDL	190	170	840	BDL	**200**	BDL	BDL	BDL
IW-16	6/15/2006	19	BDL	BDL	BDL	19	18	65	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	8.8	**37**	BDL	BDL	BDL
IW-17	6/15/2006	13	BDL	22	26	61	8.8	140	BDL	NA	NA
	3/7/2007	**17**	BDL	190	BDL	207	11	**220**	BDL	BDL	BDL
IW-18	6/15/2006	BDL	BDL	BDL	BDL	BDL	12	21	BDL	NA	NA
	3/7/2007	BDL	BDL	BDL	BDL	BDL	9.8	**45**	BDL	BDL	BDL
IW-19	6/15/2006	BDL	BDL	14	BDL	14	8.5	270	BDL	NA	NA
	3/7/2007	**40**	BDL	91	25	156	14	**1,000**	BDL	BDL	BDL
IW-20	6/15/2006	8	BDL	BDL	BDL	8	BDL	170	BDL	NA	NA
	3/7/2007	**35**	BDL	24	BDL	59	14	**150**	BDL	BDL	BDL
IW-21	6/16/2006	FREE PRODUCT									
	3/7/2007	**180**	BDL	680	BDL	860	BDL	**210**	BDL	BDL	BDL
IW-22	6/16/2006	270	BDL	13	8	291	14	280	BDL	NA	NA
	3/7/2007	**480**	BDL	BDL	BDL	480	BDL	**64**	BDL	BDL	BDL

TABLE 3

Summary of Groundwater and Surface Water Quality

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	MTBE	Naphthalene	EDB	Lead	1,2-DCA
IW-23	6/16/2006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	8	BDL	BDL	BDL	BDL
IW-24	6/16/2006	1,900	BDL	BDL	47	1,947	BDL	240	BDL	NA	NA
	3/7/2007	**2,300**	BDL	90	BDL	2,390	**120**	**100**	BDL	**210**	BDL
IW-25	6/16/2006	1,600	BDL	110	42	1,752	54	440	BDL	NA	NA
	3/7/2007	**1,700**	BDL	120	BDL	1,820	**53**	**360**	BDL	BDL	BDL
IW-26	6/16/2006	260	BDL	57	BDL	317	BDL	1,100	BDL	NA	NA
	3/7/2007	**330**	BDL	44	30	404	18	**430**	BDL	BDL	BDL
IW-27	6/16/2006	34	BDL	BDL	BDL	34	BDL	540	BDL	NA	NA
	3/7/2007	**12**	BDL	BDL	BDL	12	BDL	**390**	BDL	**26**	BDL
IW-28	6/16/2006	87	BDL	BDL	9	96	BDL	400	BDL	NA	NA
	3/7/2007	**120**	BDL	72	BDL	192	25	**380**	BDL	BDL	BDL
IW-29		COULD NOT LOCATE									
	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IW-30	6/16/2006	87	BDL	BDL	47	134	20	15	BDL	NA	NA
	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IW-31	6/16/2006	69	BDL	BDL	8	77	19	26	BDL	NA	NA
	3/8/2007	**11**	BDL	BDL	BDL	11	24	20	BDL	BDL	BDL
IW-32	6/16/2006	55	BDL	BDL	19	74	BDL	1,400	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	BDL	**130**	BDL	BDL	BDL
IW-33	6/16/2006	59	BDL	BDL	BDL	59	20	7	BDL	NA	NA
	3/8/2007	**54**	BDL	BDL	BDL	54	18	14	BDL	BDL	BDL
IW-34	6/16/2006	BDL	BDL	BDL	BDL	BDL	7.1	BDL	BDL	NA	NA
	3/8/2007	BDL	BDL	BDL	BDL	BDL	5.9	BDL	BDL	BDL	BDL
CW-1	11/11/1996	550	508	BDL	136	1,194	2,260	22.6	-	-	-
CS-1	8/9/1994	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	11/11/1996	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/30/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
CS-2	8/9/1994	BDL	BDL	BDL	3	3	BDL	BDL	-	-	-
	11/11/1996	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-
CS-3	8/9/1994	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	11/11/1996	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	-	-
	3/9/2007	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	8/29/2007	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<1.0	-	-	-

NOTES:
All concentrations in ug/l
Total BTEX - sum of detected Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8260B.
MTBE - Methyl-Tertiary-Butyl Ether
RBSLs - Risk-Based Screening Levels
BDL- Below Detection Limit
NA - Not Analyzed
NS - Not Sampled
- = No Data
EDB - 1,2-Dibromoethane
1,2-DCA - 1,2-Dichloroethane

TABLE 4

Summary of Groundwater Quality, 8 Oxygenates

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Date Sampled	TAME	TAA	ETBA	TBF	DIPE	EtOH	ETBE	TBA
MW-1R	7-Mar-07	BDL	1,100	BDL	BDL	30	BDL	BDL	6,100
	29-Aug-07	<100	<1,000	<1,000	<500	27.3	<2,000	<100	2,520
MW-2	7-Mar-07	BDL	BDL	BDL	BDL	17	BDL	BDL	270
	29-Aug-07	<100	<1,000	<1,000	<500	15.9	<2,000	<100	<500
MW-3	8-Mar-07	DRY							
MW-4	15-Apr-04	WELL DESTROYED							
MW-5	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	110
	30-Aug-07	<10.0	158	<100	<50.0	2.4	<200	<10.0	1,070
MW-6	8-Mar-07	BDL	1,800	BDL	BDL	15	BDL	BDL	19,000
	29-Aug-07	<10.0	155	<100	<50.0	2.6	<200	<10.0	<50.0
MW-7	9-Mar-07	BDL	1,900	BDL	BDL	27	BDL	BDL	13,000
	30-Aug-07	<10.0	892	<100	<50.0	15.2	<200	<10.0	10,200
MW-8	8-Mar-07	BDL	170	BDL	BDL	6	BDL	BDL	510
	29-Aug-07	<10.0	189	<100	<50.0	9.4	<200	<10.0	484
MW-9	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	1.5	<200	<10.0	<50.0
MW-10	8-Mar-07	BDL	BDL	BDL	BDL	28	BDL	BDL	350
	29-Aug-07	<10.0	183	<100	<50.0	32.7	<200	<10.0	791
MW-11D	7-Mar-07	BDL	180	BDL	BDL	BDL	BDL	BDL	1,400
	30-Aug-07	<10.0	251	<100	<50.0	2.1	<200	<10.0	1,940
MW-12	7-Mar-70	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<50.0	<500	<500	<250	5.7	367	<50.0	<250
MW-13	8-Mar-07	BDL	280	BDL	BDL	BDL	BDL	BDL	1,000
	29-Aug-07	<10.0	260	<100	50.0	3.9	<200	<10.0	<50.0
MW-14D	8-Mar-07	BDL	640	BDL	BDL	6.5	BDL	BDL	4,300
	30-Aug-07	<10.0	497	<100	<50.0	5.9	<200	<10.0	4,390
MW-15	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-16	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6,000
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-17	8-Mar-07	BDL	BDL	BDL	BDL	6	BDL	BDL	190
	29-Aug-07	<10.0	116	<100	<50.0	3.6	<200	<10.0	531
MW-18	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	50.0	<1.0	<200	<10.0	<50.0
MW-19	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	980	<100	<50.0	12.3	<200	<10.0	12,300
MW-20	8-Mar-07	BDL	1,700	BDL	BDL	14	BDL	BDL	19,000
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-21	9-Mar-07	BDL	490	BDL	BDL	16	BDL	BDL	3,200
	30-Aug-07	<10.0	435	<100	<50.0	5.1	<200	<10.0	<50.0
MW-22	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	128

TABLE 4

Summary of Groundwater Quality, 8 Oxygenates

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Date Sampled	TAME	TAA	ETBA	TBF	DIPE	EtOH	ETBE	TBA
MW-23D	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	50.0
MW-24	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-25	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-26	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-27D	8-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-28D	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-29	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-30D	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-31	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-32D	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-33	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-34D	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-35	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-36D	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	570
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-37	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	30-Aug-07	<10.0	<100	<100	<50.0	1.9	<200	<10.0	528
MW-38	8-Mar-07	BDL	480	BDL	BDL	BDL	BDL	BDL	2,300
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
MW-39	8-Mar-07	BDL	280	BDL	BDL	33	BDL	BDL	1,700
	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0

TABLE 4

Summary of Groundwater Quality, 8 Oxygenates

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Date Sampled	TAME	TAA	ETBA	TBF	DIPE	EtOH	ETBE	TBA
IW-1	8-Mar-07	BDL	660	BDL	BDL	34	BDL	BDL	4,300
IW-2	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,400
IW-3	8-Mar-07	BDL	BDL	BDL	BDL	47	BDL	BDL	1,800
IW-4	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2,500
IW-5	8-Mar-07	BDL	330	BDL	BDL	36	BDL	BDL	1,800
IW-6	8-Mar-07	BDL	830	BDL	BDL	54	BDL	BDL	3,500
IW-7	8-Mar-07	220	BDL	BDL	BDL	BDL	BDL	BDL	5,300
IW-8	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1,000
IW-9	7-Mar-07	BDL	1,300	BDL	BDL	22	BDL	BDL	8,100
IW-10	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3,200
IW-11	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	13,000
IW-12	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	10,000
IW-13	7-Mar-07	BDL	BDL	BDL	BDL	28	BDL	BDL	5,400
IW-14	7-Mar-07	BDL	390	BDL	BDL	23	BDL	BDL	4,200
IW-15	7-Mar-07	BDL	740	BDL	BDL	35	BDL	BDL	4,800
IW-16	7-Mar-07	BDL	2,000	BDL	BDL	28	BDL	BDL	19,000
IW-17	7-Mar-07	BDL	270	BDL	BDL	20	BDL	BDL	2,000
IW-18	7-Mar-07	BDL	1,300	BDL	BDL	20	BDL	BDL	7,200
IW-19	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	300
IW-20	7-Mar-07	BDL	960	BDL	BDL	BDL	BDL	BDL	4,300
IW-21	8-Mar-07	BDL	BDL	BDL	BDL	5.9	BDL	BDL	BDL
IW-22	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2,200
IW-23	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5,300
IW-24	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	320
IW-25	7-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	530
IW-26	7-Mar-07	BDL	230	BDL	BDL	5.7	BDL	BDL	700
IW-27	9-Mar-07	BDL	110	BDL	BDL	BDL	BDL	BDL	210
IW-28	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4,400
IW-29	8-Mar-07	BDL	1,600	BDL	BDL	28	BDL	BDL	17,000
IW-30	8-Mar-07	BDL	1,200	BDL	BDL	BDL	BDL	BDL	13,000
IW-31	8-Mar-07	BDL	1,400	BDL	BDL	16	BDL	BDL	18,000
IW-32	8-Mar-07	BDL	240	BDL	BDL	BDL	BDL	BDL	2,900
IW-33	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IW-34	30-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0

TABLE 4

Summary of Groundwater Quality, 8 Oxygenates

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well Identification	Date Sampled	TAME	TAA	ETBA	TBF	DIPE	EtOH	ETBE	TBA
CS-1	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
CS-2	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0
CS-3	9-Mar-07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	29-Aug-07	<10.0	<100	<100	<50.0	<1.0	<200	<10.0	<50.0

NOTES:
All units in ug/l.
TAME - tert-Amylmethyl ether
TAA - tert-Amyl Alcohol
TBA - tert-Butyl Alcohol (2-Methyl-2-propanol)
TBF - tert-Butyl Formate
DIPE - Diisopropyl ether
EtOH - Ethanol
ETBE - Ethyl-tert-butyl ether
ETBA - Ethyl tert-butyl alcohol (3,3-Dimethyl-1-Butanol)
BDL - Below Detection Limits

TABLE 11

Summary of Natural Attenuation Parameters

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-1R	19-Jun-03	9.6	769	2.26	25.4	NA	NA	NA
	15-Apr-04	6.1	432	1.43	13.7	NA	NA	NA
	15-Jun-06	9.2	446	1.37	24.2	NA	NA	NA
	7-Mar-07	6.8	694	2.70	18.2	BDL	BDL	3
MW-2	19-Jun-03	7.2	719	1.95	24.5	NA	NA	NA
	15-Apr-04	6.5	276	1.45	13.8	NA	NA	NA
	15-Jun-06	DRY						
	7-Mar-07	6.4	627	2.9	19.4	BDL	BDL	2.8
MW-3	19-Jun-03	8.1	387	1.49	27.3	NA	NA	NA
	15-Apr-04	NM	NM	NM	NM	NM	NM	NM
	16-Jun-06	DRY						
	8-Mar-07	DRY						
MW-5	13-Oct-03	5.8	276	2.17	23.9	NA	NA	NA
	15-Apr-04	6.1	275	1.70	14.2	NA	NA	NA
	16-Jun-06	5.9	265	1.21	22.7	NA	NA	NA
	8-Mar-07	6.1	122	2.37	14.5	1.6	7.7	BDL
MW-6	13-Oct-03	5.0	492	2.95	24.1	NA	NA	NA
	15-Apr-04	6.3	420	1.88	14.2	NA	NA	NA
	16-Jun-06	6.4	316	1.47	20.3	NA	NA	NA
	8-Mar-07	6.3	377	2.41	14.4	BDL	BDL	2.4
MW-7	13-Oct-03	5.0	350	2.65	24.0	NA	NA	NA
	15-Apr-04	6.0	340	1.67	14.3	NA	NA	NA
	15-Jun-06	Damaged						
	9-Mar-07	6.0	343	2.59	12.0	BDL	BDL	0.7
MW-8	19-Jun-03	10.3	728	1.60	25.8	NA	NA	NA
	15-Apr-04	6.2	267	2.44	13.3	NA	NA	NA
	16-Jun-06	6.7	574	1.92	25.0	NA	NA	NA
	8-Mar-07	6.8	660	2.15	15.9	BDL	34	BDL
MW-9	19-Jun-03	9.7	110	1.00	27.5	NA	NA	NA
	15-Apr-04	6.5	402	1.23	13.3	NA	NA	NA
	15-Jun-06	8.0	267	1.27	26.0	NA	NA	NA
	8-Mar-07	6.8	624	3.50	16.9	BDL	BDL	0.6
MW-10	19-Jun-03	NM	NM	NM	NM	NM	NM	NM
	15-Apr-04	6.1	83.0	3.02	13.4	NA	NA	NA
	16-Jun-06	6.8	1,119	0.20	26.1	NA	NA	NA
	8-Mar-07	6.7	672	1.58	14.7	BDL	BDL	1.4
MW-11D	15-Apr-04	5.6	222	1.50	18.3	NA	NA	NA
	15-Jun-06	9.4	201	13.03	24.3	NA	NA	NA
	7-Mar-07	6.5	263	3.18	20.1	BDL	BDL	1.2

TABLE 11

Summary of Natural Attenuation Parameters

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-12	15-Apr-04	6.7	345	3.57	13.1	NA	NA	NA
	15-Jun-06	6.3	436	0.93	27.3	NA	NA	NA
	7-Mar-07	6.5	728	1.25	19.4	BDL	BDL	2.2
MW-13	15-Apr-04	6.5	162	2.37	13.2	NA	NA	NA
	15-Jun-06	7.8	499	0.73	29.0	NA	NA	NA
	8-Mar-07	6.5	621	2.15	16.9	BDL	BDL	1.6
MW-14D	15-Apr-04	6.6	241	2.56	23.3	NA	NA	NA
	15-Jun-06	6.4	272	2.02	28.0	NA	NA	NA
	8-Mar-07	6.3	450	2.01	20.3	BDL	BDL	2
MW-15	15-Apr-04	6.3	211	3.21	13.5	NA	NA	NA
	15-Jun-06	8.7	214	1.40	25.3	NA	NA	NA
	8-Mar-07	6.0	223	1.88	19.9	BDL	BDL	2
MW-16	15-Apr-04	6.5	317	2.21	13.2	NA	NA	NA
	16-Jun-06	6.7	686	1.15	26.3	NA	NA	NA
	7-Mar-07	6.5	625	1.78	19.2	BDL	BDL	2
MW-17	15-Jun-06	6.8	428	1.05	26.9	NA	NA	NA
	8-Mar-07	6.8	742	2.20	18.8	BDL	BDL	BDL
MW-18	15-Jun-06	6.7	116	2.18	25.3	NA	NA	NA
	8-Mar-07	5.6	117	2.30	18.8	BDL	BDL	1.3
MW-19	16-Jun-06	6.4	414	2.16	21.5	NA	NA	NA
	8-Mar-07	6.4	372	2.56	14.3	BDL	BDL	2.4
MW-20	16-Jun-06	7.3	174	2.00	24.5	NA	NA	NA
	8-Mar-07	6.2	212	2.41	15.1	1.5	15	BDL
MW-21	16-Jun-06	6.0	351	0.99	21.1	NA	NA	NA
	8-Mar-07	6.3	370	1.79	14.2	BDL	BDL	2
MW-22	16-Jun-06	5.9	144	1.01	20.6	NA	NA	NA
	9-Mar-07	6.3	232	1.74	11.7	BDL	BDL	1.8
MW-23D	15-Jun-06	9.1	126	6.49	24.3	NA	NA	NA
	7-Mar-07	9.0	235	3.04	19.9	BDL	38	BDL
MW-24	16-Jun-06	6.0	390	1.70	25.2	NA	NA	NA
	7-Mar-07	5.9	256	2.00	20.6	BDL	BDL	3.5
MW-25	16-Jun-06	6.2	287	2.57	24.4	NA	NA	NA
	7-Mar-07	6.1	312	1.08	19.7	BDL	BDL	3
MW-26	16-Jun-06	6.2	243	3.50	23.9	NA	NA	NA
	7-Mar-07	6.5	580	1.39	20.2	BDL	BDL	3.2
MW-27D	16-Jun-06	8.9	432	1.85	26.0	NA	NA	NA
	8-Mar-07	8.6	289	2.95	18.8	BDL	76	BDL
MW-28D	15-Jun-06	7.4	222	3.88	23.6	NA	NA	NA
	8-Mar-07	9.6	245	5.98	18.6	BDL	9.8	BDL

TABLE 11

Summary of Natural Attenuation Parameters

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
MW-29	9-Mar-07	6.4	127	2.92	20.2	BDL	14	1.4
MW-30D	9-Mar-07	11.2	230	4.31	21.2	BDL	23	BDL
MW-31	9-Mar-07	7.8	167	3.40	21.4	BDL	BDL	BDL
MW-32D	9-Mar-07	8.8	208	3.82	19.4	BDL	27	BDL
MW-33	9-Mar-07	6.4	140	3.01	20.4	BDL	BDL	2.2
MW-34D	9-Mar-07	6.8	204	2.19	20.8	BDL	41	BDL
MW-35	9-Mar-07	6.5	175	1.42	20.3	BDL	14	2.3
MW-36D	9-Mar-07	8.3	187	4.03	20.2	BDL	47	BDL
MW-37	9-Mar-07	6.1	204	3.64	14.0	BDL	23	2
MW-38	9-Mar-07	6.8	211	3.64	14.0	BDL	8	BDL
MW-39	9-Mar-07	6.1	118	5.71	13.9	BDL	28	0.5
IW-1	15-Jun-06	8.2	466	0.87	28.0	NA	NA	NA
	8-Mar-07	6.5	597	2.57	16.2	BDL	BDL	1.8
IW-2	15-Jun-06	10.1	528	0.99	27.5	NA	NA	NA
	8-Mar-07	6.8	917	2.82	18.1	BDL	BDL	BDL
IW-3	16-Jun-06	6.7	955	0.39	25.5	NA	NA	NA
	8-Mar-07	6.7	789	3.75	16.2	1.5	BDL	0.8
IW-4	16-Jun-06	6.7	942	1.38	23.4	NA	NA	NA
	7-Mar-07	6.3	246	0.88	21.0	BDL	BDL	BDL
IW-5	16-Jun-06	6.8	983	1.00	25.1	NA	NA	NA
	8-Mar-07	6.6	693	2.61	16.8	BDL	BDL	2.2
IW-6	16-Jun-06	6.9	1229	0.94	23.8	NA	NA	NA
	7-Mar-07	6.7	922	2.01	19.5	BDL	BDL	2
IW-7	16-Jun-06	6.8	1275	0.65	24.2	NA	NA	NA
	8-Mar-07	6.8	910	2.56	16.0	BDL	BDL	BDL
IW-8	16-Jun-06	7.4	924	0.85	23.9	NA	NA	NA
	8-Mar-07	6.7	856	2.68	18.2	BDL	BDL	1.7
IW-9	15-Jun-06	free product						
	8-Mar-07	6.7	814	1.79	17.2	BDL	BDL	1.2
IW-10	16-Jun-06	6.8	1016	0.97	22.9	NA	NA	NA
	7-Mar-07	6.7	786	2.15	19.0	BDL	BDL	0.9
IW-11	16-Jun-06	6.5	614	0.86	23.3	NA	NA	NA
	7-Mar-07	6.5	509	3.27	19.0	BDL	BDL	3.6
IW-12	16-Jun-06	free product						
	7-Mar-07	6.6	576	1.82	18.8	BDL	BDL	2.2
IW-13	15-Jun-06	7.7	399	0.63	24.4	NA	NA	NA
	7-Mar-07	6.5	651	1.47	18.3	BDL	9.2	2.8
IW-14	19-Jun-03	6.2	968	0.94	25.5	NA	NA	NA
	15-Jun-06	9.2	393	1.32	24.6	NA	NA	NA
	7-Mar-07	6.7	687	2.43	18.4	BDL	BDL	3.2

TABLE 11

Summary of Natural Attenuation Parameters

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
IW-15	15-Jun-06	7.2	360	1.14	22.6	NA	NA	NA
	7-Mar-07	6.4	626	2.84	18.4	BDL	44	2.6
IW-16	15-Jun-06	8.6	390	1.19	25.7	NA	NA	NA
	7-Mar-07	7.2	619	1.57	18.7	BDL	94	2.2
IW-17	15-Jun-06	8.4	323	1.16	23.9	NA	NA	NA
	7-Mar-07	6.3	549	2.57	18.8	BDL	14	2
IW-18	15-Jun-06	7.6	380	0.96	26.1	NA	NA	NA
	7-Mar-07	6.2	487	2.12	19.6	BDL	BDL	2
IW-19	15-Jun-06	8.6	342	0.42	23.7	NA	NA	NA
	7-Mar-07	6.6	617	2.10	19.5	BDL	BDL	2
IW-20	15-Jun-06	7.5	331	1.21	25.4	NA	NA	NA
	7-Mar-07	6.3	535	2.52	19.5	BDL	BDL	2.7
IW-21	15-Jun-06	NM	NM	NM	NM	NM	NM	NM
	7-Mar-07	6.6	770	1.44	19.6	BDL	BDL	1.7
IW-22	16-Jun-06	6.8	645	1.86	24.6	NA	NA	NA
	7-Mar-07	6.6	701	2.20	19.4	BDL	BDL	2
IW-23	16-Jun-06	7.0	638	1.17	24.4	NA	NA	NA
	8-Mar-07	6.7	614	2.54	17.2	0.11	11	2.5
IW-24	16-Jun-06	6.7	1323	0.78	22.9	NA	NA	NA
	7-Mar-07	6.8	983	1.96	19.2	BDL	BDL	1.8
IW-25	16-Jun-06	6.8	1201	0.69	22.8	NA	NA	NA
	7-Mar-07	6.6	932	15.81	19.9	BDL	BDL	1.4
IW-26	16-Jun-06	6.8	729	0.84	23.9	NA	NA	NA
	7-Mar-07	6.8	503	1.63	18.7	BDL	BDL	1.2
IW-27	16-Jun-06	6.5	541	0.78	26.3	NA	NA	NA
	7-Mar-07	6.4	539	19.30	19.3	BDL	BDL	4.4
IW-28	16-Jun-06	6.5	999	0.71	24.7	NA	NA	NA
	7-Mar-07	6.5	809	2.43	20.4	BDL	BDL	3.4
IW-29	16-Jun-06	NM	NM	NM	NM	NM	NM	NM
	9-Mar-07	6.1	327.0	2.7	11.8	BDL	37	2.2
IW-30	16-Jun-06	6.1	310	1.40	21.6	NA	NA	NA
	9-Mar-07	6.1	210	2.68	11.8	BDL	BDL	BDL
IW-31	16-Jun-06	6.3	252	1.30	21.2	NA	NA	NA
	8-Mar-07	6.3	340	1.90	14.5	BDL	BDL	BDL

TABLE 11

Summary of Natural Attenuation Parameters

Hess Station # 40245
7351 Two Notch Road
Columbia, SC
UST # 07631

Well I.D.	Date Sampled	pH	Specific Conductivity	Dissolved Oxygen	Temperature (°C)	Nitrate	Sulfate	Ferrous Iron
IW-32	16-Jun-06	6.5	359	1.53	22.2	NA	NA	NA
	8-Mar-07	6.4	374	2.50	14.4	BDL	BDL	1.9
IW-33	16-Jun-06	5.9	345	1.04	20.6	NA	NA	NA
	8-Mar-07	6.1	279	2.96	14.7	BDL	7.6	2.7
IW-34	16-Jun-06	6.1	367	2.45	22.3	NA	NA	NA
	8-Mar-07	6.4	323	2.79	14.8	BDL	38	2.2
CS-1	9-Mar-07	6.9	58	7.54	11.5	0.17	8.1	BDL
CS-2	9-Mar-07	7.0	59	7.51	11.0	0.16	8.2	BDL
CS-3	9-Mar-07	7.0	51	7.61	11.9	0.17	8.3	BDL

NOTES:
Specific Conductivity (umhos/cm)
Temp. - Temerature
Dissolved oxygen, Nitrate , Sulfate, Ferrous Iron (mg/L)
NM - Not measured
BDL - Below Detection Limit
NA - Not Analyzed
- = No Data

CAROLINA TESTING COMPANY, INC

Soil, Foundation, Materials
and Nondestructive Testing

Tel: 803-749-2700
Fax: 803-732-9242

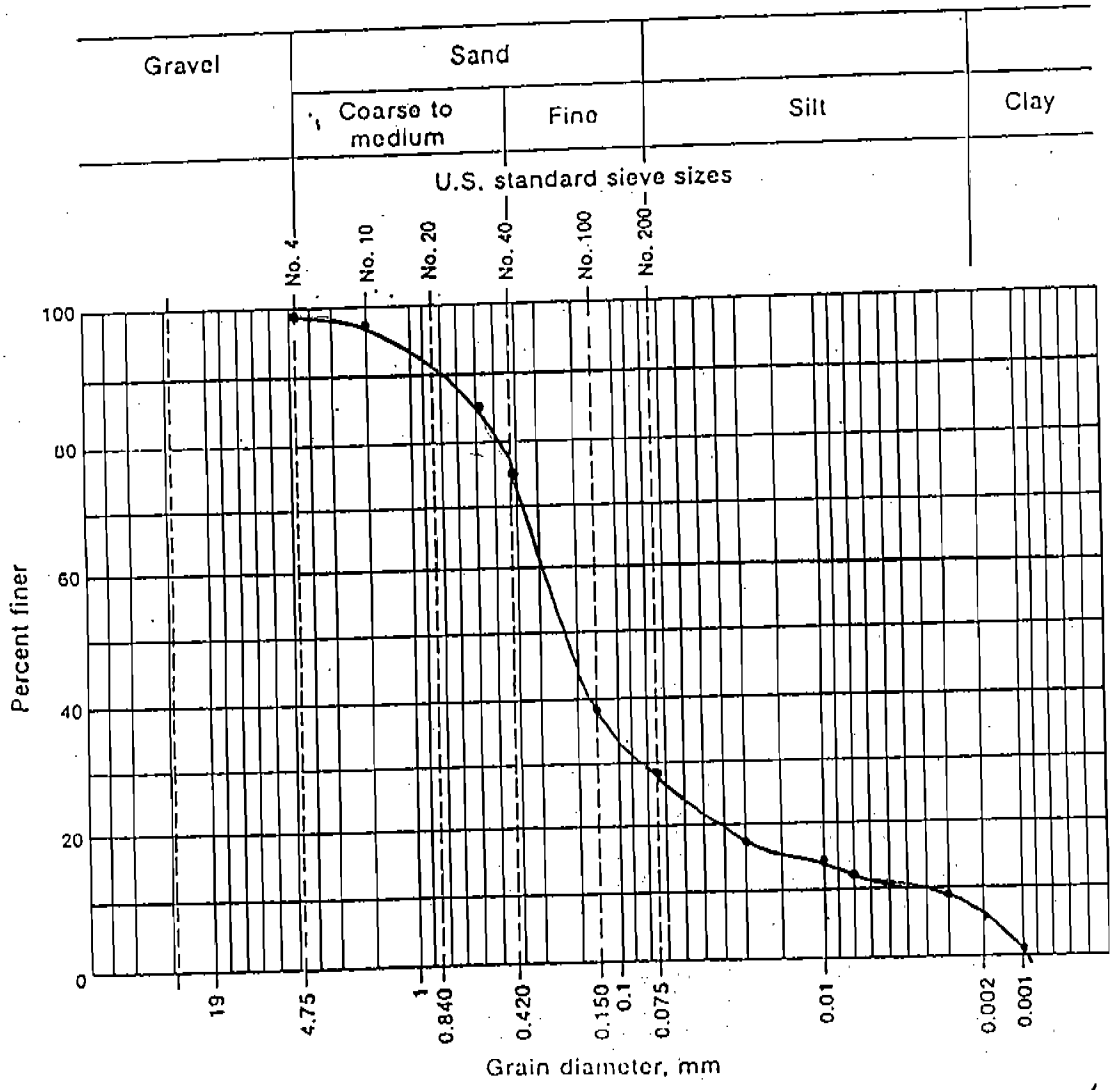
Project HESS 40245 LAB # A-150

Project NO. 1713.4012

LOCATION MW-10 Depth - 11-13 Ft

Soil Description Lt GRAY Fine to Med SAND

% Finer #200	29.0 %
% CLAY	1.0 %
% SILT	28.0 %

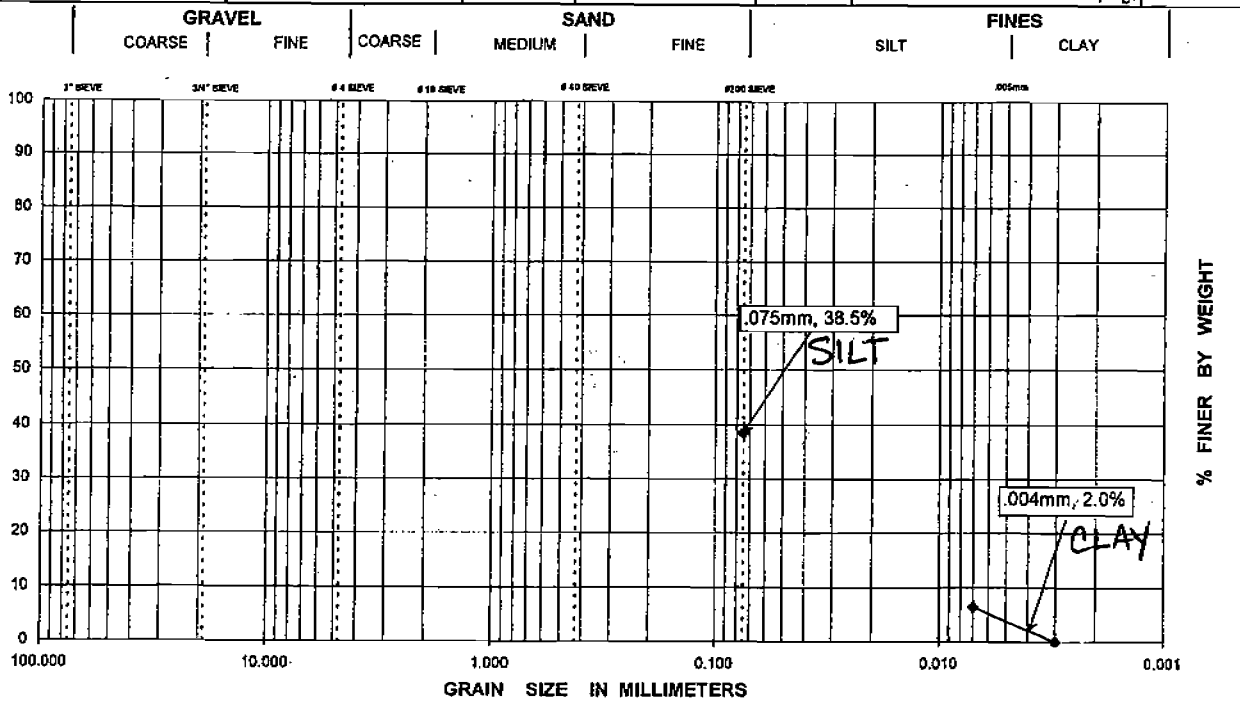


J. Shah

Terracon

GRAIN SIZE DISTRIBUTION TEST REPORT
(ASTM D422)

JOB NAME :	Pace Analytical						
JOB NO. :	73065096	DATE:	03/07/07	TESTED BY :	RGS	REVIEWED BY :	PAM
BORING / PIT NO. :	MW-30D	DEPTH, ft.:	60-65	SAMPLE NO. :	H-20	SAMPLE TYPE :	Bulk
PACE SAMPLE ID:	928068600						
SOIL DESCRIPTION :	-					SP. GRAVITY, Gs :	-
LIQUID LIMIT, %:	-	PLASTICITY INDEX, %:	-	MOISTURE, %:	-	FINES, %:	38.5
D10, MM:	-	D30, MM:	-	D60, MM:	-	COEFF. OF CURVATURE, C_C:	-
CLASSIFICATION		UNIFIED:	-	AASHTO:	-	COEFF. OF UNIFORMITY, C_U:	-

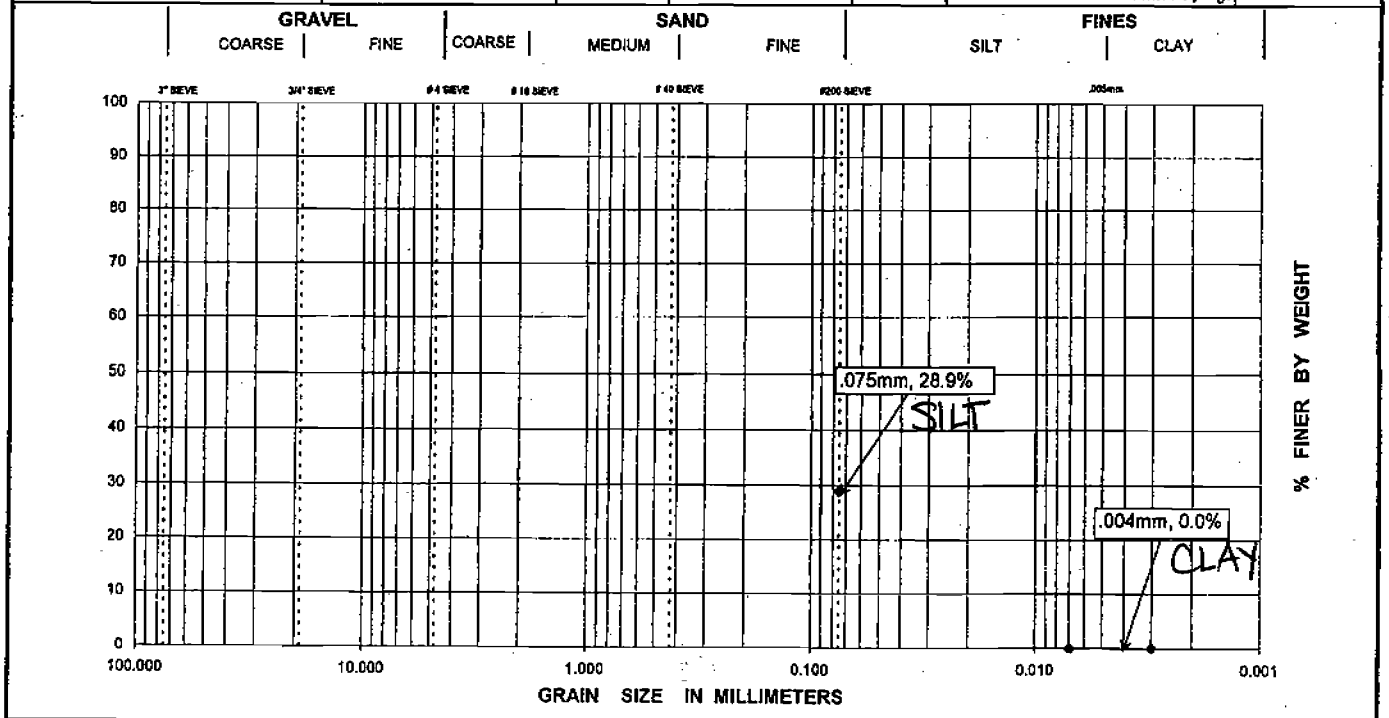


SAND, 61.5% > #200 Sieve

Terracon

GRAIN SIZE DISTRIBUTION TEST REPORT
(ASTM D422)

JOB NAME :	Pace Analytical						
JOB NO. :	73065096	DATE:	03/07/07	TESTED BY :	RGS	REVIEWED BY :	PAM
BORING / PIT NO. :	MW-32D	DEPTH, ft.:	60-65	SAMPLE NO. :	H-21	SAMPLE TYPE :	Bulk
PACE SAMPLE ID:	928068618						
SOIL DESCRIPTION :	-					SP. GRAVITY, Gs :	-
LIQUID LIMIT, %:	-	PLASTICITY INDEX, %:	-	MOISTURE, %:	-	FINES, %:	28.9
D10, MM:	-	D30, MM:	-	D60, MM:	-	COEFF. OF CURVATURE, C_C:	-
CLASSIFICATION		UNIFIED:	-	AASHTO:	-	COEFF. OF UNIFORMITY, C_U:	-



SAND, 71.1% > #200 sieve

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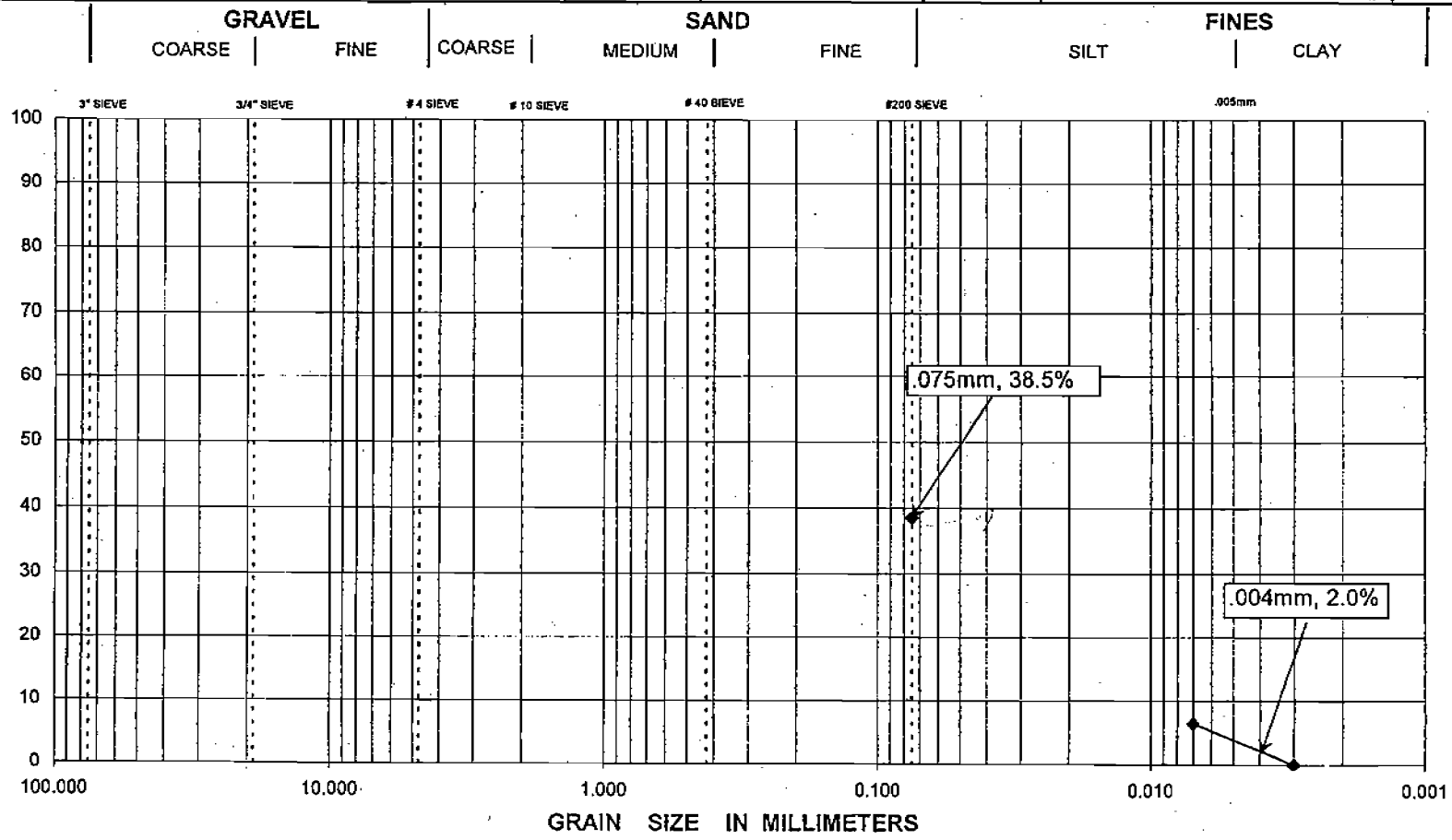
Terracon

GRAIN SIZE DISTRIBUTION TEST REPORT

(ASTM D422)

JOB NAME :	Pace Analytical						
JOB NO. :	73065096	DATE:	03/07/07	TESTED BY :	RGS	REVIEWED BY :	*PAM*
BORING / PIT NO. :	MW-30D	DEPTH, ft.:	60-65	SAMPLE NO. :	*H-20*	SAMPLE TYPE :	*Bulk*
PACE SAMPLE ID:	928068600						
SOIL DESCRIPTION :	-					SP. GRAVITY, Gs :	-
LIQUID LIMIT, %:	-	PLASTICITY INDEX, %:	-	MOISTURE, %:	-	FINES, %:	*38.5*
D10, MM:	-	D30, MM:	-	D60, MM:	-	COEFF. OF CURVATURE, C_C:	-
CLASSIFICATION		UNIFIED:	-	AASHTO:	-	COEFF. OF UNIFORMITY, C_U:	-

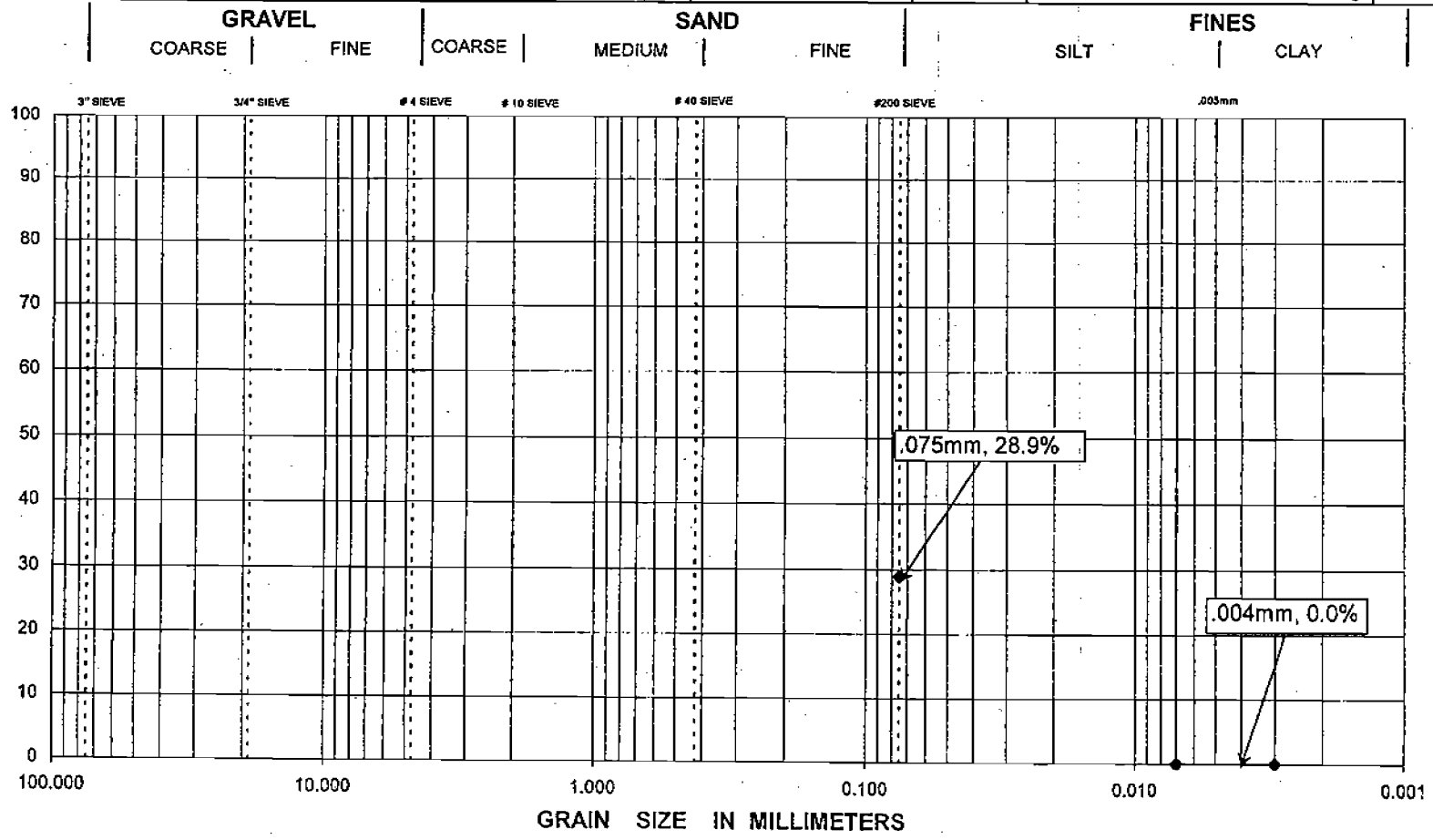


Terracon

GRAIN SIZE DISTRIBUTION TEST REPORT

(ASTM D422)

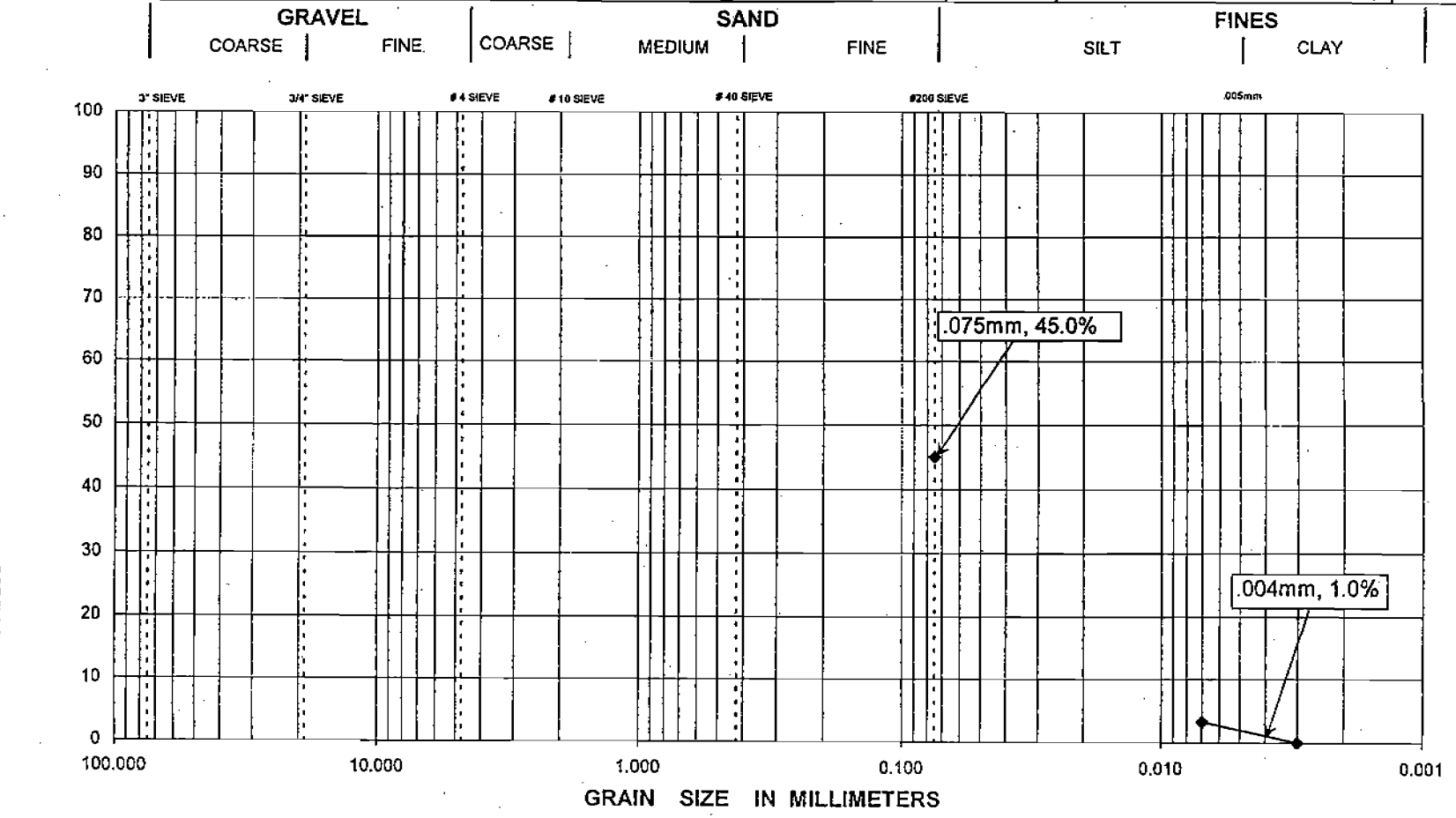
JOB NAME :	Pace Analytical						
JOB NO. :	73065096	DATE:	03/07/07	TESTED BY :	RGS	REVIEWED BY :	*PAM*
BORING / PIT NO. :	MW-32D	DEPTH, ft.:	60-65	SAMPLE NO. :	*H-21*	SAMPLE TYPE :	*Bulk*
PACE SAMPLE ID:	928068618						
SOIL DESCRIPTION :	-					SP. GRAVITY, Gs :	-
LIQUID LIMIT, %:	-	PLASTICITY INDEX, %:	-	MOISTURE, %:	-	FINES, %:	*28.9*
D10, MM:	-	D30, MM:	-	D60, MM:	-	COEFF. OF CURVATURE, C_C:	-
CLASSIFICATION		UNIFIED:	-	AASHTO:	-	COEFF. OF UNIFORMITY, C_U:	-



Terracon

GRAIN SIZE DISTRIBUTION TEST REPORT
(ASTM D422)

JOB NAME :	Pace Analytical						
JOB NO. :	73065096	DATE:	03/07/07	TESTED BY :	RGS	REVIEWED BY :	*PAM*
BORING / PIT NO. :	MW-34D	DEPTH, ft.:	-	SAMPLE NO. :	*H-18*	SAMPLE TYPE :	*Bulk*
PACE SAMPLE ID:	928068584						
SOIL DESCRIPTION :	-					SP. GRAVITY, Gs :	-
LIQUID LIMIT, %:	-	PLASTICITY INDEX, %:	-	MOISTURE, %:	-	FINES, %:	*45.0*
D10, MM:	-	D30, MM:	-	D60, MM:	-	COEFF. OF CURVATURE, C_C:	-
CLASSIFICATION		UNIFIED:	-	AASHTO:	-	COEFF. OF UNIFORMITY, C_U:	-



Terracon

GRAIN SIZE DISTRIBUTION TEST REPORT
(ASTM D422)

JOB NAME :	Pace Analytical						
JOB NO. :	73065096	DATE:	03/07/07	TESTED BY :	RGS	REVIEWED BY :	*PAM*
BORING / PIT NO. :	MW-36D	DEPTH, ft.:	60-65	SAMPLE NO. :	*H-19*	SAMPLE TYPE :	*Bulk*
PACE SAMPLE ID:	928068592						
SOIL DESCRIPTION :	-					SP. GRAVITY, Gs :	-
LIQUID LIMIT, %:	-	PLASTICITY INDEX, %:	-	MOISTURE, %:	-	FINES, %:	*41.8*
D10, MM:	-	D30, MM:	-	D60, MM:	-	COEFF. OF CURVATURE, C_C:	-
CLASSIFICATION		UNIFIED:	-	AASHTO:	-	COEFF. OF UNIFORMITY, C_U:	-

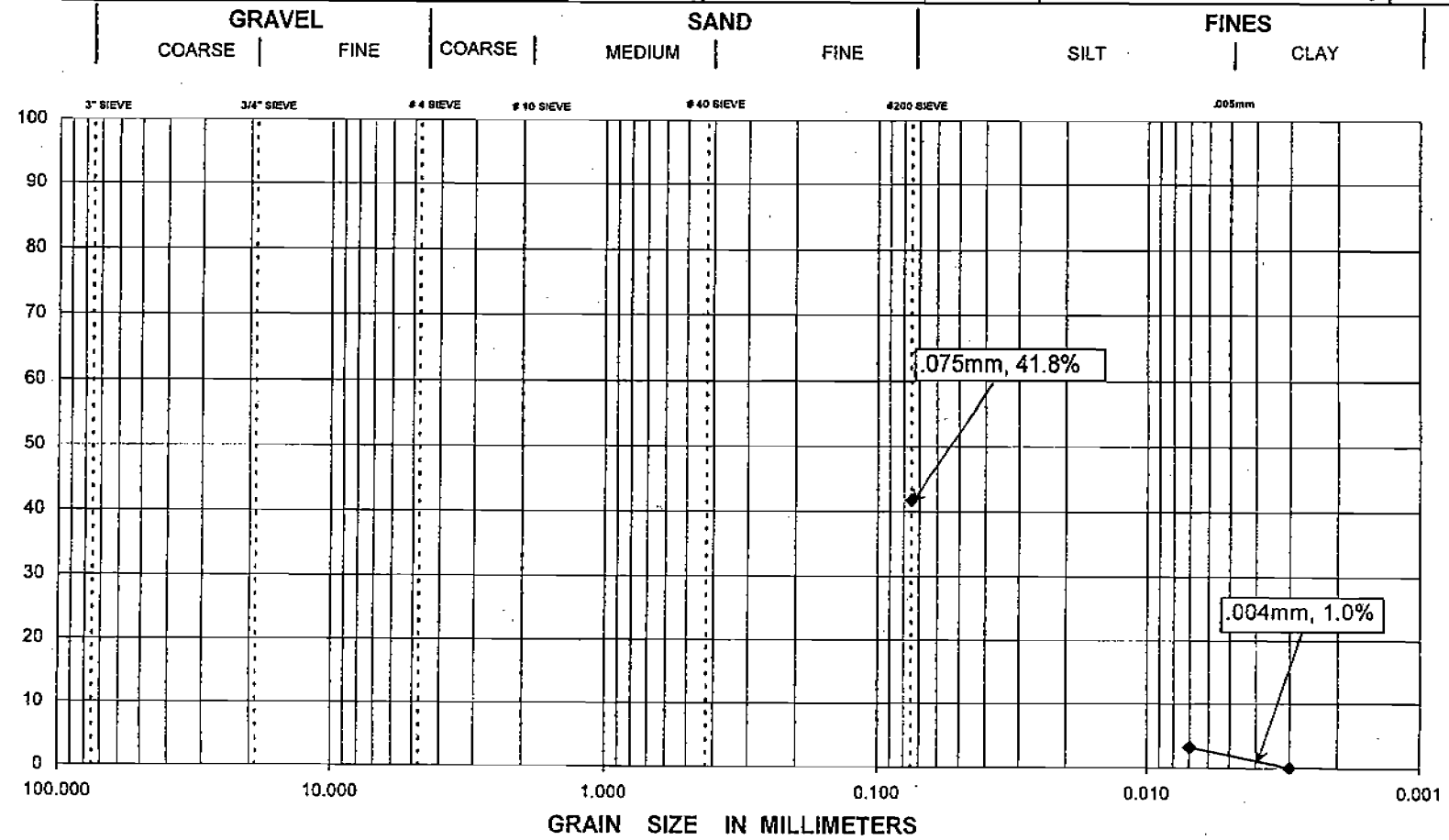


TABLE 5

HESS SITE #40245

HYDRAULIC CONDUCTIVITY (K):

	MW-1	MW-2	
	7.726E-06	1.907E-06	ft/sec
	0.668	0.165	ft/day
	5.0	1.2	gpd/ft*ft

SATURATED AQUIFER THICKNESS (H):

H = 23 feet

TRANSMISSIVITY (T):
T = KH

	MW-1	MW-2	
	1.777E-04	4.387E-05	ft*ft/sec
	15.4	3.8	ft*ft/day
	114.8	28.4	gpd/ft

VELOCITY CALCULATIONS SITE #40245
IN FEET/YEAR

(V=iK/n)

Assumed Effective Porosity (n): n = 0.2

		Date:	10/1/90	4/29/91	
		Hydraulic Gradient (i)	0.029	0.033	ft/ft
Well	Hydr. Cond.				
MW-1	0.668 ft/day		35	40	velocities in feet/year
MW-2	0.165 ft/day		9	10	

SLUG TEST DATA SHEET

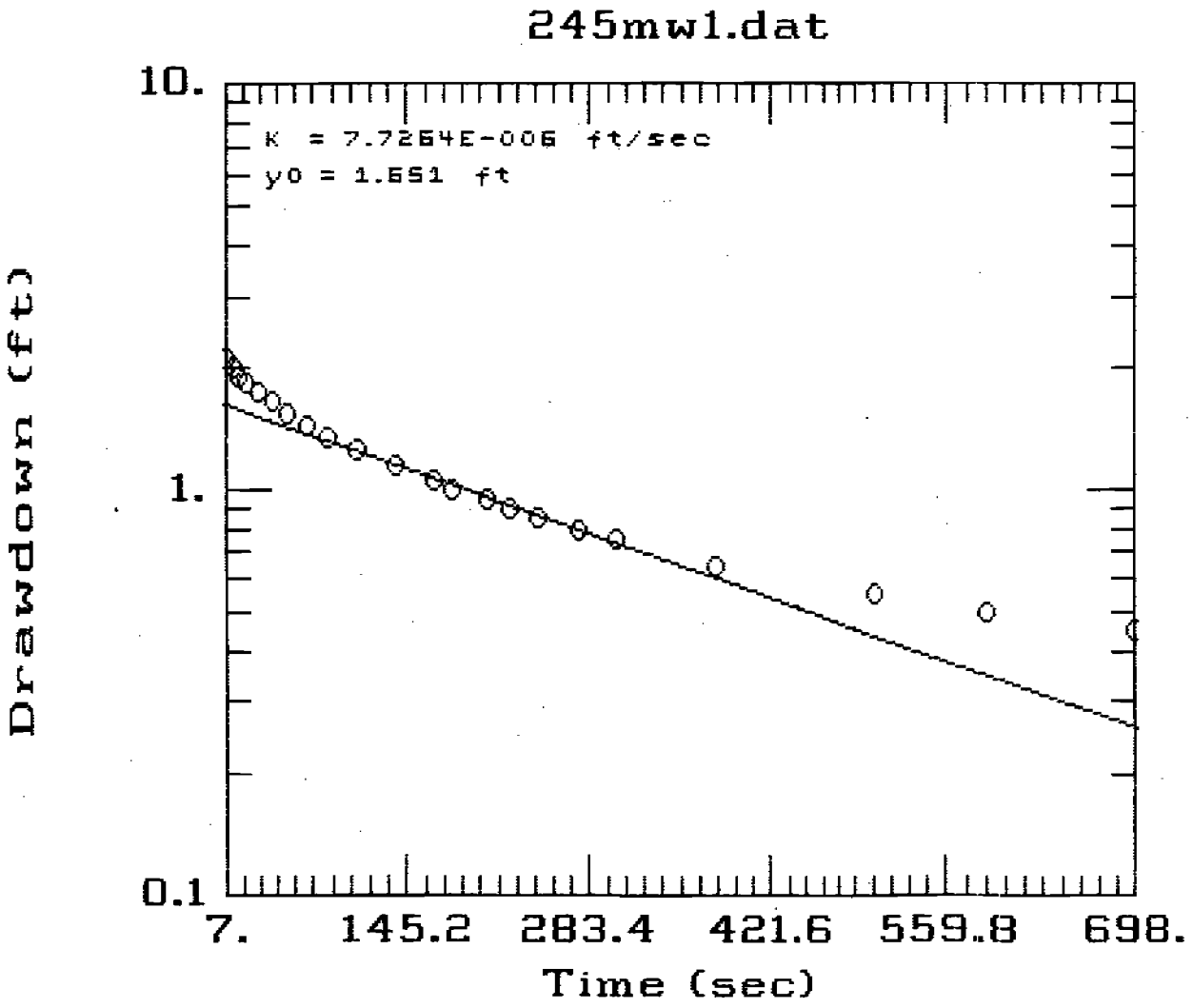
Well # MW-1

9/25/90

static water level = 10.25 feet below M.P.

seconds since slug removed	water level below M.P.	HEAD (y)
7 sec	12.35 ft	2.10 ft
13	12.25	2.00
18	12.15	1.90
23	12.10	1.85
33	12.00	1.75
44	11.90	1.65
55	11.80	1.55
71	11.70	1.45
86	11.60	1.35
107	11.50	1.25
136	11.40	1.15
166	11.30	1.05
178	11.25	1.00
205	11.20	0.95
222	11.15	0.90
244	11.10	0.85
274	11.05	0.80
304	11.00	0.75
378	10.90	0.65
506	10.80	0.55
587	10.75	0.50
698	10.70	0.45

HESS #40245
TWO NOTCH RD.
COLUMBIA, SC


245mw1.dat
K = 7.7264E-006 ft/sec
y0 = 1.651 ft
10.
1.
0.1
Drawdown (ft)
7.
145.2
283.4
421.6
559.8
698.
Time (sec)

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V R E S U L T S

PROBLEM DEFINITION

Problem title: 245mw1.dat

Knowns and Constants:

No. of data points	22
Radius of well casing	0.174
Radius of well	0.29
Aquifer saturated thickness	23
Well screen length	10
Static height of water in well	4.75
Log(Re/Rw)	1.927

ESTIMATION RESULTS

Analytical method:
Bouwer and Rice (unconfined aquifer slug test)

PARAMETER ESTIMATES

	Estimate		Std. Error
K =	7.7264E-006	+/-	2.8366E-007
y0 =	1.6514E+000	+/-	3.0541E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:

Number of residuals	11
Number of estimated parameters	2
Degrees of freedom	9
Residual mean	0.000529
Residual standard deviation	0.02363
Residual variance	0.0005585

Model Residuals:

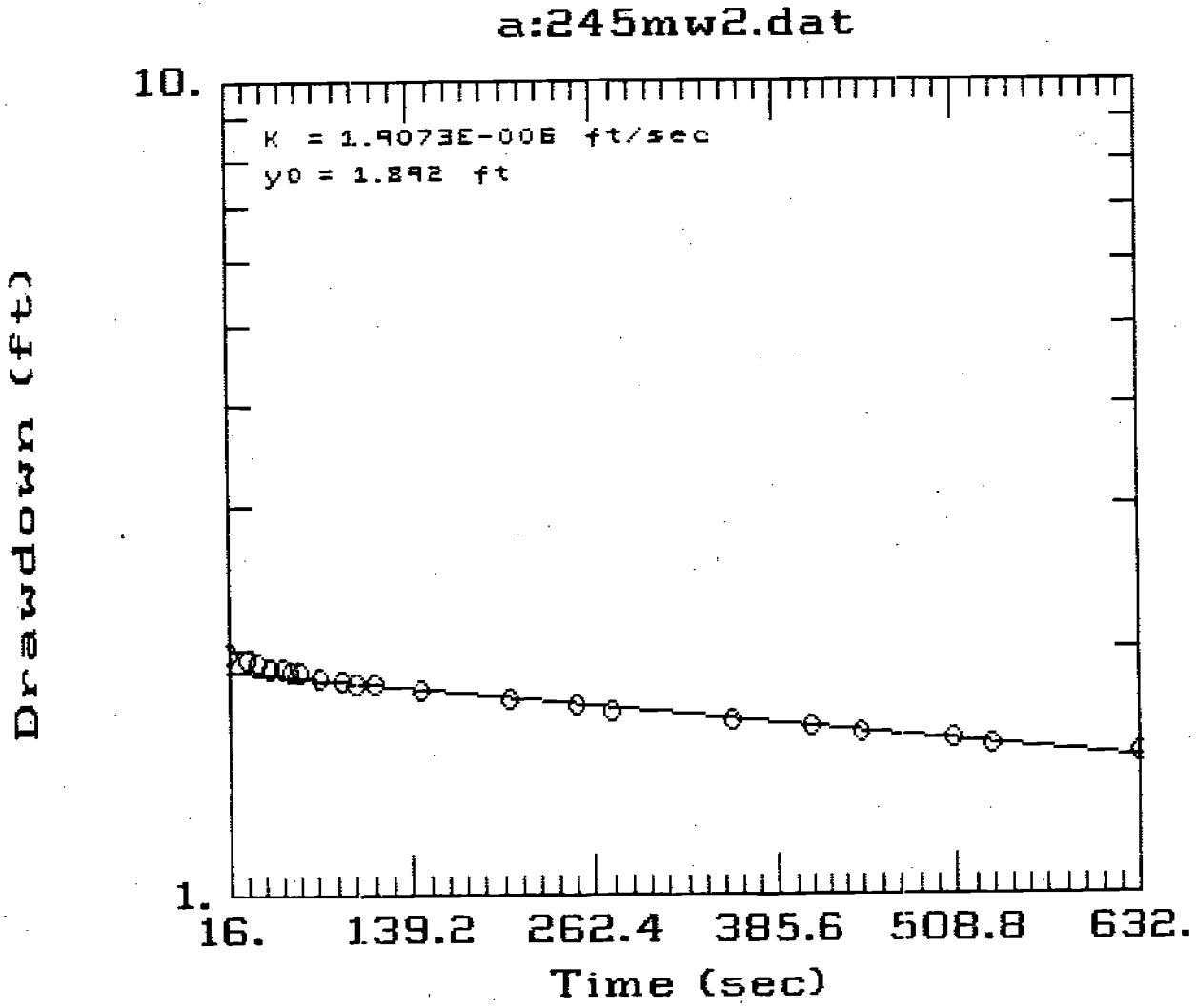
Time	Observed	Calculated	Residual	Weight
78	1.85	1.8331	0.01688	1
94	1.83	1.8213	0.0086589	1
102	1.82	1.8155	0.0045201	1
114	1.81	1.8067	0.0032766	1
145	1.78	1.7843	-0.0042973	1
205	1.73	1.7417	-0.01168	1
249	1.7	1.7111	-0.011075	1
274	1.68	1.6939	-0.013927	1
354	1.63	1.6402	-0.010197	1
408	1.6	1.6049	-0.0048966	1
444	1.58	1.5818	-0.001786	1
507	1.55	1.5421	0.0078597	1
532	1.53	1.5267	0.0033153	1
632	1.48	1.4664	0.013604	1

SLUG TEST DATA SHEET

Well # MW-2
9/26/90
static water level = 10.47 feet below M.P.

seconds since slug removed	water level below M.P.	Head (y)
16	12.44	1.97
29	12.41	1.94
35	12.39	1.92
44	12.37	1.90
52	12.36	1.89
58	12.35	1.88
64	12.34	1.87
78	12.32	1.85
94	12.30	1.83
102	12.29	1.82
114	12.28	1.81
145	12.25	1.78
205	12.20	1.73
249	12.17	1.70
274	12.15	1.68
354	12.10	1.63
408	12.07	1.60
444	12.05	1.58
507	12.02	1.55
532	12.00	1.53
632	11.95	1.48

HESS# 40245
TWO NOTCH RD.
COLUMBIA, SC


a:245mw2.dat
10.
K = 1.9073E-006 ft/sec
y0 = 1.892 ft
Drawdown (ft)
1.
16.
139.2
262.4
385.6
508.8
632.
Time (sec)

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

A Q T E S O L V   R E S U L T S

PROBLEM DEFINITION

Problem title: a:245mw2.dat

Knowns and Constants:

```
   No. of data points................ 21
   Radius of well casing............. 0.229
   Radius of well.................... 0.33
   Aquifer saturated thickness....... 23
   Well screen length................ 10
   Static height of water in well... 4.53
   Log(Re/Rw)........................ 1.805
```

ESTIMATION RESULTS

Analytical method:
Bouwer and Rice (unconfined aquifer slug test)

PARAMETER ESTIMATES

	Estimate		Std. Error
K =	1.9073E-006	+/-	4.4522E-008
y0 =	1.8916E+000	+/-	5.7041E-003

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

Weighted Residual Statistics:

```
   Number of residuals............... 14
   Number of estimated parameters.... 2
   Degrees of freedom................ 12
   Residual mean..................... 1.825E-005
   Residual standard deviation....... 0.01021
   Residual variance................. 0.0001043
```

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Model Residuals:

Time	Observed	Calculated	Residual	Weight
86	1.35	1.3152	0.034831	1
107	1.25	1.244	0.005956	1
136	1.15	1.1521	-0.0021034	1
166	1.05	1.0641	-0.014137	1
178	1	1.0309	-0.03086	1
205	0.95	0.95974	-0.0097434	1
222	0.9	0.91751	-0.017505	1
244	0.85	0.86559	-0.015591	1
274	0.8	0.7995	0.00049939	1
304	0.75	0.73846	0.011544	1
378	0.65	0.60707	0.042929	1